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July 2002**



# **LOOKOUT PASS SKI AND RECREATION AREA**

## **FINAL ENVIRONMENTAL IMPACT STATEMENT**

**Idaho Panhandle National Forests  
Coeur d'Alene River Ranger District**

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July 2002



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# Lookout Pass Ski and Recreation Area Final EIS

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# CHAPTER 1 PURPOSE AND NEED

## 1.1 INTRODUCTION

Lookout Pass Ski and Recreation Area (LPSRA) is proposing to expand its use of Forest Service Lands on the Montana/Idaho border. This expansion is part of the LPSRA Master Development Plan which was accepted in 1997 by the Idaho Panhandle National Forest (IPNF).

Lookout Pass Ski and Recreation Area (LPSRA) is located in the northern Rocky Mountains. The LPSRA is located 6 miles east of Mullan, Idaho and 33 miles west of St. Regis, Montana (**Figure 1-1**). LPSRA is almost halfway between Spokane, Washington, 90 miles west of the ski area, and Missoula, Montana, 100 miles east of the ski area.

The existing ski area lies entirely on Federal land administered by the USDA Forest Service. The Idaho side of LPSRA in Shoshone County is administered by the Idaho Panhandle National Forest (IPNF). The Montana side of the LPSRA in Mineral County is administered by the Lolo National Forest (LNF). The Special Use Permit for LPSRA is administered by the IPNF. Existing ski runs and lifts are located on the east side of Runt Mountain (**Figure 1-2**).

LPSRA currently operates a full winter and summer schedule. Facilities include one chairlift, one rope tow, a base lodge, rental shop, maintenance building, ski patrol first aid room, portable A-frame building for ticketing, electrical bunker, and flammable materials storage building. Existing facilities also include water and sewage disposal systems. Forest roads and trails can be accessed from both the upper and lower portions of the existing ski area.

## 1.2 PURPOSE AND NEED

The purpose and need for this project is based on both physical and economic factors that require expanding services at LPSRA. These factors include:

1. The need for additional ski terrain to respond to increased demand, to enhance the skiing experience, to provide more advanced and intermediate terrain and to compete effectively in the local ski market;
2. The need to decrease crowding, reduce skier congestion/conflicts and increase safe operating conditions;
3. The need to maintain the economic viability of LPSRA to ensure its continued operation and its ongoing contribution to the local economy.

### 1.2.1 Need for Additional Ski Terrain

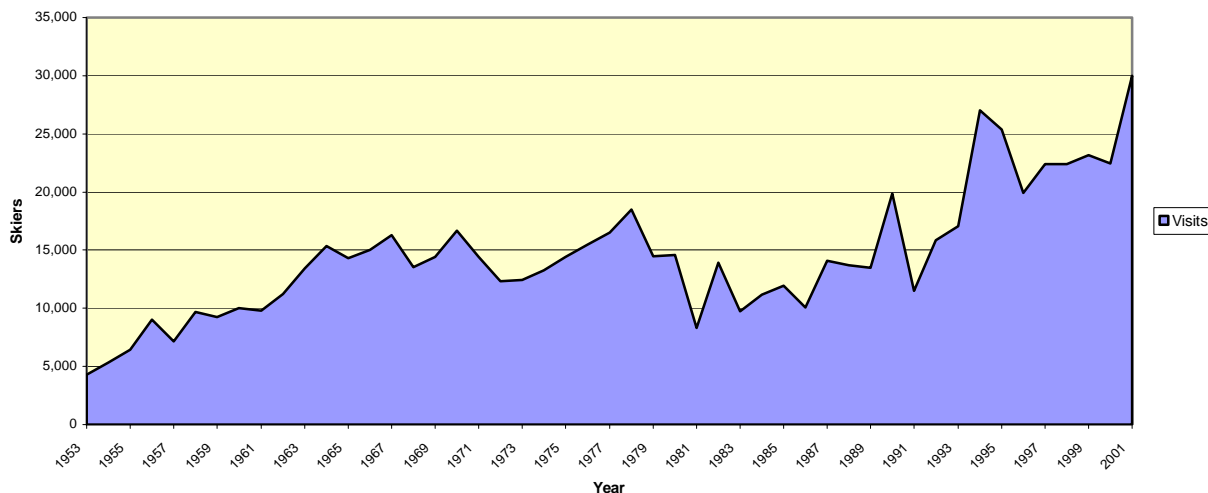
#### *Increased Skier Use Rates*

Skier visits (which in this EIS includes snowboard visits) to LPSRA have increased steadily (**Figure 1-3**). The number of skiers per season has doubled over the past 20 years from







**Figure 1-3: Total Individual Skier Visits** (source: Phil Edholm, pers. comm., 3/5/2000 and 3/29/02).

14,593 in the 1980-1981 season to 30,016 in the 2000-2001 season. The 30,016 total for 2001-2002 represents a 33% increase over the previous year. The average number of skiers per season over the last 5 years was 24,090. Early Bird season pass sales doubled from 145 for the 2001-2001 season to over 300 for the 2001-2002 season. These increases in skier visits have occurred despite expansions at other ski areas in the same market area including Silver Mountain, Schweitzer, Blacktail Mountain, Discovery and Montana Snowbowl.

Skier visit numbers for the last 5 years indicate that weekend use is often over 300 skiers per day. The number of skiers exceeded 450 on 27 days of the 81 day season (33% of the time) during the 2001-2002 season. The demand for the ski area, even in its current configuration, tells the owners that if additional facilities were built, skiers would come to use them (Phil Edholm, pers. comm., 9/28/00).

Population growth in the LPSRA service area is projected to continue beyond national averages, which increases the potential skier market. Mineral and Missoula counties in Montana have experienced population increases over the past ten years of 17% and 22% respectively. Shoshone county Idaho has experienced a population decline of 1% during this period while Kootenai County Idaho increased by 56%. Spokane County Washington had a 16% population increase during this ten year period. Together, these five counties had a total population increase of approximately 150,000 between 1990 and 2000 (US Census Bureau 2002).

A survey of 13 ski areas in the Northern Region of the USDA Forest Service for the 1999-2000 season showed that skier visits (including snowboard visits) totaled 875,995 compared to 804,636 during the 1998-99 season. This 8.9% increase in use is attributed to population growth in the area, expanding school programs, and optimal snow conditions (USDA Forest Service, 2000c).

### ***Increased Ski School Participation***

The Free Ski School program at LPSRA operates for a 10 week period on Saturdays. Participation increased from 260 registrants in the 2000-2001 season to 400 in the 2001-2002 season. These ski school participants present a significant addition to lift lines, lodge and parking facilities.

### ***Increased Demand for Terrain***

The small size and dependence on only one main chairlift at LPSRA significantly limit its attractiveness to skiers and its competitiveness in the local ski market. The amount of advanced and intermediate terrain is especially lacking. These factors have been the source of continuing comment to LPSRA management for many years ((Phil Edholm, pers. comm., 7/17/00). The majority of ski areas that have gone out of business over the past several decades have been those with limited terrain and one main lift since it is difficult to compete with the larger areas.

## **1.2.2 Need to Decrease Crowding and Improve Safety**

The demand for skiing at LPSRA has produced uncomfortably crowded conditions, especially in the lodge and at the base of the ski lift on weekends and holidays. When the Idaho Ski Club sold the ski area, one of the sale conditions was that the new owners were dedicated to move forward with Master Development Plan to addresses these concerns. Skier numbers continue to increase at LPSRA and the population served also continues to increase. Based on these increases, the existing crowded conditions will continue to worsen over time. The proposed expansion is designed to meet a comfortable balance in use.

### ***Lift Lines, Crowding and Safety***

Lift lines are a problem when the area receives more than 300 skiers per day. Lift lines are about 10 minutes for 300 skiers per day, and about 15 minutes or more when skier numbers exceed 400 per day (Phil Edholm, pers. comm., 7/17/00). In the 2001-2002 season, skier numbers averaged 370 skiers per day and exceeded 450 on 27 of the 81 days of operation (33% of the time).

Lift lines and crowding at ski areas are always a safety concern, as the probability of collisions typically increases with the number of skiers per unit area. Similar to other areas, skier collisions or near-misses are more frequent at LPSRA during peak-use days, particularly at the bottom of the lift where skiers congregate and wait in line. Unlike other areas, however, this situation is aggravated at LPSRA because:

1. Skiers of different abilities must use the same runs and the same lift; and
2. There is little room near the base of the hill for a long lift line, without extending the line uphill onto the ski runs.

Mixing skiers of different abilities creates more opportunities for skier accidents because skiers traveling at different speeds and trajectories funnel together at the bottom of the hill near in the lift loading area. When lift lines are long, there is little room for the line to extend, except uphill. Providing additional lifts and runs for skiers of different abilities helps disperse skiers over the

hill, reduces lift lines, decreases congestion the base area, and decreases the probability of collisions. (Phil Edholm, pers. comm., 7/17/00.)

Although the ski area has increased in popularity, it has reached its carrying capacity. The owners of the LPSRA predict that without the proposed action, winter use at LPSRA would remain crowded and slowly decline in use as other ski areas are improved and maintained. They predict that Lookout would continually lose skiers as other ski areas expand and become more aggressive in marketing. With the current lift and facilities, the ski area does not have anything to offer "new" skiers, a key element for the area to be profitable and remain in business (Phil Edholm, pers. comm., 9/19/00).

### ***Lodge Crowding***

The existing lodge at LPSRA seats 240 people, whereas weekend use is often over 300 skier visits per day. When skier visits exceed 400 people per day, the lodge exceeds comfortable service levels. The largest skier attendance days exceed 1,000. Over the past 5 years, days exceeding 450 skier visits per day ranged from 2 to 27 operating days per season (Phil Edholm, pers. comm., 5/5/00). In the 2001-2002 season, skier visits exceeded 450 per day 33% of the time. The skiers are also accompanied by an unknown number of snowmobilers and cross-country skiers that visit the lodge and use snowmobile and cross-country trails adjacent to the ski area.

### ***Parking Lot Crowding***

The existing parking lot at LPSRA covers about 1.7 acres with asphalt and provides enough space for 260 cars. Crowding at the LPSRA parking lot has been a problem on weekends, holidays, and special events. During the past two years, approximately 200 cars, 4 buses, and 20 trucks with snowmobile trailers are parked at the ski area parking lot on weekends and holidays. During the "Race the Face" snowmobile hill climb in April of 2000, numerous cars, trucks, and snowmobile trailers were parked along the 1000-foot access road from Exit 0 and on both sides of the Interstate 90 overpass (Phil Edholm, pers. comm.).

## **1.2.3 Need to Maintain Economic Viability**

To remain economically viable, LPSRA must expand to accommodate increasing demand and to compete effectively in the local ski market. The area has a history of economic struggles that have caused past ownership changes and prevented past expansion efforts. LPSRA management estimates that about 25,000 skier visits per year are needed for the operation to remain viable in its current configuration. However, the current lodge and lift configuration can not sustain these numbers. The proposed action would be economically viable with a 20% increase in skiers, or 27,000 skiers per year. This economic estimate was made by Phil Edholm, LPSRA owner and manager, who developed the expansion plan based on his many years in ski area management. A description of Mr. Edholm's ski area experience is provided in the project file. LPSRA predicts that the proposed action would increase average skier visits to approximately 40,000 per year in 8 years (a 78% increase). This increase would be realized if the area operated 6 days per week of the ski season, rather than 4 days per week. The average number of visitors would be about 333 per day, a daily increase of 19% from the existing average of 281 skiers per day (Phil Edholm, pers. comm., 9/19/2000).

If LPSRA does not expand, it will likely experience declines in use as skiers migrate to other areas. The proposed action is designed to make LPSRA more attractive to skiers by providing less crowded conditions and a greater range of skiing experiences. It would meet the increase in skier demand and help the ski area achieve a more stable economic status. Although ski area use has increased historically, the ski area has struggled economically for years. The local economy has been hindered by declines in the mining and logging industries. However, the population within the LPSRA service area has increased substantially and is projected to continue to increase.

### ***Affordable Skiing***

Lookout Pass ski area was developed by the Idaho Ski Club to provide affordable winter recreation for the people living in the Silver Valley. The Idaho Ski Club sold the ski area under the condition that the new owners continue the Free Ski School and maintain the family-oriented atmosphere and affordable skiing of the area. The Ski Club made it clear that the affordability of skiing continue, especially with the existence of larger, more expensive resort-type ski areas in the area that did not meet the needs of affordability for many local people, but catered to vacationers from outside the area.

LPSRA has made a commitment to continue the traditions of the past, including the Free Ski School and affordable lift prices. The proposed action was designed to provide affordable skiing that would be sustained by ticket sales to local users and users within the region (Phil Edholm, President and General Manager of LPSRA, pers. comm., 5/30/00).

The maintenance of a family atmosphere and low lift ticket prices were identified as important issues during the NEPA public scoping processes for the proposed expansions at Lookout Pass, Discovery Basin, and Lost Trail Ski Areas. Many people who choose to live and raise families in rural areas of northern Idaho and western Montana have lower incomes than their urban counterparts (see **Chapter 3 – Socioeconomics**). Modest family incomes can lead to substantial financial constraints and cause frustration for those interested in downhill skiing. For people living in snow country, skiing (which in this EIS also includes snowboarding) can be a social event, enjoyed with friends and family. An important quality-of-life factor for many local families is the time they spend skiing with their children. These social factors can be addressed by a ski area specifically designed to meet local needs, which serve a relatively small number of people and provide basic skier services.

## **1.3 PROPOSED ACTION**

The proposed action under review in this document is the expansion of Lookout Pass Ski and Recreation Area (LPSRA) on the Montana/Idaho border. The proposed action was formulated to address the purpose and need identified in **Section 1.2** including:

- The need for additional ski terrain to respond to increased demand, to enhance the skiing experience, to provide more advanced and intermediate terrain and to compete effectively in the local ski market;
- The need to decrease crowding, reduce skier congestion/conflicts and increase safe operating conditions;
- The need to maintain the economic viability of LPSRA to ensure its continued operation and its ongoing contribution to the local economy.

Components of the proposed action have been separated into **Principle Features** and **Opportunities**. Principle features are essential to the proposed action and include such things as new lifts, ski runs, lodge facilities and parking. Opportunities are not essential to the proposed action but would address issues and concerns identified by LPSRA or raised during scoping. Opportunities include such things as overnight lodging, RV hookups and lift-assisted mountain biking.

The proposed action and the alternatives developed from comments are described in detail in **Chapter 2**. The **Principle Features** of the proposed action vary by alternative but all include:

- Constructing two new ski lifts to access additional ski trails and reduce lift lines.
- Constructing new ski trails (requires 87-154 acres of clearing) to reduce crowding and provide additional intermediate and advanced terrain.
- Constructing one acre of additional parking to reduce crowding and accommodate increased demand.
- Expanding the lodge, ski shop and maintenance buildings along with small improvements to the water and sewer systems to reduce crowding and accommodate increased demand.
- Constructing 1.2 to 1.7 miles of temporary roads and trails for installing lifts and harvesting timber from new ski trails.

The **Opportunities** identified in relation to the proposed action vary slightly by alternative but all include:

- Providing overnight lodge use.
- Providing lift-assisted mountain biking.
- Providing 20 RV hookups in the parking area.
- Improving or eliminating primitive roads to alleviate existing drainage and erosion problems.
- Improving/upgrading the fuel storage system to reduce spill risk.
- Providing more facilities for environmental education in relation to the new Forest Service environmental learning center to be constructed at Lookout Pass.

The proposed action does not include any provisions for snow-making or night skiing since neither are planned for, or considered likely, in the foreseeable future. No private land development is planned including subdivisions, condos, golf or other facilities. No private land exists at the LPSRA which would allow such development activities. The proposed action does not include any provisions that would affect road less or wilderness areas.

## 1.4 SCOPE OF THE PROPOSAL

The scope of this environmental impact statement was determined through public scoping and agency analysis, in accordance with the requirements of 40 CFR 1508.25. The scope of the actions to be addressed includes the proposed expansion of the Lookout Pass Ski and Recreation Area. This proposal includes additional chairlifts and ski runs, expanded lodge and parking facilities and additional buildings. Associated activities include timber removal and re-grading for ski lifts and runs, temporary road construction and culvert installations to facilitate tree removal and construction or expansion of buildings, parking areas, water and sewer

systems and electrical supplies. The details of all proposed activities and alternatives are discussed in Chapters 2, 3 and 4. This environmental impact statement documents analysis of site-specific, on-the-ground activities.

The EIS analysis includes *connected actions*, *cumulative actions*, *similar actions*, *direct effects*, *indirect effects*, and *cumulative effects*. The EIS also identifies *opportunities* for improvements that are not essential to the proposed action but would address issues and concerns identified by LPSRA or raised during scoping.

**Connected Actions** are closely related actions that should be discussed in the same EIS. Actions are connected if they:

- Automatically trigger other actions which may require environmental assessment;
- Cannot or would not proceed unless other actions are taken previously or simultaneously;
- Are interdependent parts of a larger action and depend on the larger action for their justification.

An example of connected action would be subdivision development adjacent to a ski area that is not part of the LPSRA proposed action. However, the proposed action may encourage development of the subdivision. Impacts of connected actions are described in **Chapter 4**.

**Similar Actions** are those actions which, when viewed with other reasonably foreseeable or proposed actions, have similarities that provide a basis for evaluating their environmental consequences together, such a common timing or geography. Alternatives to the proposed action were considered in this analysis, including a No Action Alternative. These alternatives are discussed in detail in **Chapter 2**.

**Direct Actions and Effects** are those that could be caused by the proposed action and occur at the same time and place. They include such elements as timber harvest for ski run preparation, Best Management Practices (BMPs), and mitigation measures. Direct actions are required to meet the purpose and need of the proposed action. Direct actions are those identified as part of the proposed action and alternatives described in **Chapter 2**. Direct effects on all resources analyzed for the proposed action and alternatives are described in **Chapter 4**.

**Indirect Effects** are those effects that could be caused by the proposed action and are later in time or farther removed in distance, but are reasonably foreseeable. Indirect effects on all resources were analyzed for the proposed action and connected actions. Direct and indirect effects are considered equally in the analysis and not specifically identified or disclosed separately. Indirect effects are described in **Chapter 4**.

**Cumulative Effects** are those effects that could result from incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agencies (Federal or non-Federal) or persons are undertaking such other actions. Management activities considered in the cumulative effects analysis include timber harvest and road construction, which have occurred on nearby National Forest lands, as well as other ownerships. In addition, residential development and other human activities are impacts that have occurred on small private parcels in the area. The effects of all past, present, and reasonably foreseeable actions occurring within these areas are discussed in **Chapter 4**.

## 1.5 ORGANIZATION OF THE DOCUMENT

This document is tiered to and references the Forest Plans for both the Idaho Panhandle National Forests and the Lolo National Forest. These Forest Plans set forth the direction for managing the resources of each Forest.

Chapter 2 presents the key resource issues within the area and describes the alternatives considered. Chapter 3 describes the existing conditions of specific resources and the changes that would occur to each resource under implementation of each alternative. Direct, indirect and cumulative impacts are discussed.

The Appendices contain a List of Preparers that identifies the individuals who conducted the analyses and prepared the environmental impact statement. A List of References provides the full citation for those references noted in the environmental impact statement. A Glossary defines terms used in the text that may be unfamiliar to the reader. A Summary of Public Involvement and a list of those who will receive copies of this environmental impact statement are also provided (it is likely that others will request and receive copies of the document).

A biological assessment (BA) and biological evaluation (BE) have been prepared for the LPSRA project, as specified in the Endangered Species Act of 1973 and the National Forest Management Act, respectively. Provisions of the Endangered Species Act of 1973 (as amended) direct federal agencies to seek to conserve threatened and endangered species and to ensure that actions authorized, funded, or carried out by them are not likely to jeopardize the continued existence of threatened or endangered species, or result in adverse modification of their critical habitats. The BA addresses possible effects to the threatened Canada lynx, grizzly bear, bald eagle, bull trout, and endangered gray wolf. The Lynx Conservation Assessment and Strategy also provides guidance concerning proposed projects that could affect lynx or lynx habitat. The BE addresses possible effects of the proposed project on sensitive species and determines if the proposed project would affect individuals and species viability. The BA/BE has received concurrence from the US Fish and Wildlife Service. It is incorporated by reference into this EIS and is included in the project file.

Many other reports, analyses, and other documentation have been referenced or developed during the course of this project, but were not included in this document either because they were technical in nature or were of excessive length. Those items are referred to as being part of the "project files." All project files for the Lookout Pass Ski and Recreation Area Expansion Environmental Impact Statement are available for review by the public. ***To review the files, please contact Kerry Arneson at the Fernan Office of the Coeur d'Alene River Ranger District, (208) 664-2318.***

## 1.6 CHANGES MADE BETWEEN THE DRAFT AND FINAL EIS

Changes have been made to this EIS based on field verification activities and review of the Draft EIS by both the public and within the agency. Corrections of typographical or factual errors have been made as necessary. Editorial changes have been made for clarification and readability of the document. In addition, the following substantive changes have been made.

**Development and Analysis of a New Alternative:** Alternative D was developed based on public comments during review of the Draft EIS. Alternative D responds to those who



recommended an alternative that retained the snowmobile trail on Forest Road 3026 and affected less area than Alternatives B or C. For additional discussion, please refer to “2.3.5 Alternative D” in Chapter 2 “Alternatives”.

**Identification of a Preferred Alternative:** At the time the Draft EIS was published, the Forest Service did not have a preferred alternative. Based on public comment and subsequent alternative development, the Forest Service has identified Alternative D as the preferred alternative at this time.

**Supplementation, Improvement or Modification of the Analyses and Documentation:** Additional information regarding effects to various resources has been included in the Final EIS. This information includes soils, weeds, wildlife (especially lynx, elk and neotropical birds), and old growth. Mitigation and monitoring sections have been added to Chapter 2.

**Response To Public Comments:** In the Draft EIS, Section 1.7 summarized comments made by the public and other agencies during scoping and alternative development, prior to release of the Draft EIS. In this Final EIS, Chapter 5 summarizes comments made by the public and other agencies after their review of the Draft EIS as well as responses to those comments.

## 1.7 DECISION TO BE MADE

This environmental impact statement is not a decision document. This document discloses the environmental consequences of implementing the proposed action or alternatives to that action. The Forest Supervisor for the Idaho Panhandle National Forests is the Deciding Official. The decision to be made is whether or not to implement the ski area expansion as proposed or modified. A related decision is whether it is consistent with the Forest Plan or if a Forest Plan amendment is required. The decision and the rationale for that decision will be stated in the Record of Decision. An alternative will be selected for implementation based on how well the alternative addresses:

- *the extent to which each alternative addresses the purpose and need for action;*
- *consistency with the goals and findings of Forest policy (including standards, goals and objectives of the Forest Plan) and legal mandates;*
- *how well each alternative responds to the environmental issues and concerns identified by the public, other agencies, and Forest Service resource specialists;*
- *effects of the selected alternative in comparison to other alternatives considered.*

Although no public review of a Final Environmental Impact Statement (EIS) is required before issuing a Record of Decision, we have elected to provide the public a 30-day review of the Lookout Pass Ski and Recreation Area Final EIS due to the copious amount of information being presented. The decision will be prepared based on comments received throughout the process from the public and other agencies, identification of necessary corrections or additional analysis, and any new information.

To ensure consideration in making a decision, comments must be postmarked or received 30 days from the date of publication of the legal notice in the Spokesman-Review and Missoulian newspapers. Commenters should include their name, address, telephone number, and the organization they represent (if any); the title of the document on which the comment is being

submitted; and facts and reasons specific to this proposal for the Deciding Official to consider. All comments received to date have been considered and addressed as appropriate (please refer to Chapter 5). Those who have already commented need not re-submit their comments unless they have new issues of concern.

Comments received on the proposed project (including names and addresses of those who comment) will be considered part of the public record and will be available for public inspection. We can accept and consider comments submitted anonymously; however, people who submit anonymous comments will not have standing to appeal the subsequent decision (36 CFR 215). Any person may request that we withhold submitted comments from the public record (pursuant to 7 CFR 1.27(d)) by showing how the Freedom of Information Act (FOIA) permits such confidentiality. However, confidentiality may be granted in only very limited circumstances, such as to protect trade secrets. We will inform the requestor of the agency's decision regarding the request for confidentiality. If the request is denied, we will return the submitted comments and notify the requester that the comments may be resubmitted, with or without name and address, within a specified time.

## **1.8 MANAGEMENT DIRECTION**

### **1.8.1 Multiple-Use Sustained-Yield Act of 1960**

In 1960 the Forest Service was charged with management of National Forest System lands according to a philosophy of sustained yield and multiple use: production of timber, preservation of fish and wildlife habitat, watershed maintenance, mining, grazing and recreation (16 USC 528-531, 16 USC 1604(e), 1607 and 1609). The courts have distinguished the multiple-use and sustained-yield mandate of national forests from other Congressional management mandates, such as national parks. "The national forests, unlike national parks, are not wholly dedicated to recreational and environmental values," *Cronin v. United States Department of Agriculture*, 919 F.2d 439, 444 (7th Cir. 1990).

### **1.8.2 Wild and Scenic Rivers Act of 1968**

The Wild and Scenic Rivers Act (Pub. L 90-542 as amended; 16 USC 1271-1287) established a method for providing Federal protection for certain free-flowing rivers, preserving them and their immediate environments for the use and enjoyment of present and future generations. Rivers which are found eligible and included in the National Wild and Scenic Rivers System are classified as 1) wild river areas, 2) scenic river areas, or 3) recreational river areas. Segments of the Coeur d'Alene River and North Fork Coeur d'Alene River were identified as potential recreational river segments in 1982. The Wild and Scenic Rivers Interagency Guidelines (Federal Register, Vol. 47, No. 173, September 7, 1982) define "recreational river areas" as those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Ten management principles have been identified for recreational rivers: addressing carrying capacity, public use and access, basic facilities, major facilities, motorized travel, agricultural and forestry practices, other resource management practices, water quality, land use controls, and rights-of-way.

### **1.8.3 National Environmental Policy Act of 1969**

The regulations implementing the National Environmental Policy Act (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended) require analysis of projects to ensure the anticipated effects upon all resources within the project area are considered prior to project implementation (40 CFR 1502.16). The analysis for the Lookout Pass Ski and Recreation Area project followed the guidelines of NEPA as provided by the Council on Environmental Quality (CEQ).

### **1.8.4 National Forest Management Act of 1976**

The National Forest Management Act reorganized, expanded and otherwise amended the Forest and Rangeland Renewable Resources Planning Act of 1974, which called for the management of renewable resources on national forest lands. The National Forest Management Act requires the Secretary of Agriculture to assess forest lands, develop a management program based on multiple-use, sustained-yield principles, and implement a resource management plan for each unit of the National Forest System. It is the primary statute governing the administration of national forests.

### **1.8.5 Natural Resources Agenda**

On March 2, 1998, former Forest Service Chief Mike Dombeck announced the Forest Service Natural Resource Agenda. The Agenda provides the Chief's focus for the Forest Service, and identifies specific areas where there will be added emphasis, including:

- *watershed health and restoration,*
- *forest road policy,*
- *sustainable forest management,*
- *recreation.*

The alternatives have been designed to be consistent with these goals.

### **1.8.6 Forest Service Road Management and Transportation System Rule**

On January 28, 1998, in an Advance Notice of Proposed Rulemaking (63 CFR 4350), the Forest Service announced its intent to revise regulations concerning management of the national forest transportation system. In January 2001, the Forest Service issued a Final Rule regarding specific revisions to the road system rules at 36 CFR part 212 and to Forest Service administrative directives governing transportation analysis and management. The roads policy provides basic procedural protection for inventoried roadless areas and contiguous unroaded areas from road building until the Roadless Area Conservation Rule (discussed below) becomes effective, and the Forest completes a forest-scale roads analysis and incorporates it into the Forest Plan.

One of the tools developed to meet objectives of the revised policy is an integrated, science-based roads analysis process that allows objective evaluation of the environmental, social and economic impacts of proposed road construction, reconstruction, maintenance, and decommissioning (USDA Forest Service, 1999, Misc. Rep. FS-643). The six-step process does not make decisions nor allocate lands for specific purposes. Rather, the analysis identifies and addresses a set of possible issues and applicable analysis questions that, when answered,

produce information for forest line officers to consider about possible road construction, reconstruction, and decommissioning needs and opportunities. Line officers must also choose the appropriate geographic scale or scales and how detailed the analysis will be. Selecting the appropriate scale for assessing roads opportunities depends on the issues being analyzed and how their effects are manifested; the extent and nature of linkages with other ecological, social, and economic systems; the nature of variables under the control of the decision process; the information availability and value in relation to the range of potential consequences; and budget and personnel constraints (Roads Analysis: Informing Decisions about the National Forest Transportation System, USDA Forest Service, 1999, pg. 4).

It was determined that a Roads Analysis is not required for the Lookout Pass Ski and Recreation Area proposal for several reasons (see project file). A comprehensive evaluation of the entire Coeur d' Alene River Ranger District has evaluated road issues across the entire area including LPSRA. The LPSRA EIS has evaluated road conditions within the project area and determined that:

1. No changes are made to existing road management policies under the proposed project.
2. No new permanent forest system roads will be developed, constructed or re-constructed.
3. Work on existing forest system roads is limited to maintenance to accommodate timber haul from the project sites.
4. All ground disturbance generated by temporary road construction to harvest trees will be returned to the original natural condition.

### **1.8.7 Roadless Area Conservation Rule**

On October 13, 1999, President Clinton directed the Forest Service to develop a proposal for managing approximately 50 million acres of roadless areas in the National Forests. The Roadless Area Conservation Rule was published in the Federal Register on January 5, 2001, and was to be effective May 12, 2001. Essentially, the Final Rule prohibits new road construction and reconstruction and prohibits the cutting, sale and removal of timber in inventoried roadless areas on National Forest System lands (with specific exceptions). On May 10, 2001, the Idaho U.S. District Court preliminarily enjoined the Forest Service from implementing the Roadless Area Conservation Rule. There are no lands in or adjacent to the Lookout Pass Ski and Recreation Area project identified as roadless under either Forest Plan. Therefore, there would be no change to road access in relation to inventoried roadless areas under any alternative.

### **1.8.8 Interior Columbia Basin Ecosystem Management Project**

Documents related to the Interior Columbia Basin Ecosystem Management Project were used as a basis for evaluating the conditions in the Lookout Pass analysis area, including: Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin (Quigley, Thomas M.; Haynes, Richard W.; Graham, Russell T., tech. Eds. 1996); An Assessment Of Ecosystem Components In The Interior Columbia Basin And Portions Of The Klamath And Great Basins (Quigley, Thomas M.; Arbelbide, Sylvia J. tech. Eds. 1997); and Interior Columbia Basin Supplemental Draft Environmental Impact Statement (USDA Forest Service, March 2000). The assessment covers the Columbia River Basin in Washington and Oregon east of the crest of the Cascade Mountains, most of Idaho, and small portions of northern Nevada, western Montana and western Wyoming, for a total of 145 million acres.

In the Integrated Scientific Assessment (p. 23), the Lookout Pass Project Area is within a geographic area identified as Ecological Reporting Unit (ERU) #8 (part of a larger area identified by the Bureau of Economic Analysis as the Spokane economic region). “In the future, recreation demands for the public lands in the Basin will continue to increase. The Basin offers more recreational opportunities, especially in undeveloped and remote settings for land-, snow-, and water-based activities, than other regions in the country. The relative importance of recreation opportunities in the Basin will increase over time. As more people travel to the Basin for vacations, recreation will become an increasingly important export,” (An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins, Volume IV, p. 1787).

A Final EIS for the Interior Columbia Basin project was released in December 2000, with a “proposed” decision. Once a Record of Decision is signed, National Forests and BLM Districts will begin implementing the new strategy. Although the scientific findings of the ICBEMP are not part of the Forest Plan for the Idaho Panhandle National Forests, they are expected to provide guidance for the revision of the Forest Plan. No decisions or guidelines for analysis were made exclusively on this information; however, the science behind the ICBEMP is used in the analyses for the Lookout Pass recreation project. When available, information and direction provided in the ICBEMP Record of Decision will be reviewed to determine whether a correction, supplement, or revision to the Lookout Pass EIS is necessary, in compliance with Forest Service Handbook 1909.15 (Chapter 18).

### **1.8.9 Northern Region Overview**

The Northern Region Overview explores this Region’s situation with regard to ecosystem health and recreation. In the Overview, the Lookout Pass Recreation Area is part of an area identified as the Northwest Zone. “Recreation investments will focus on water and sanitation rehabilitation along lakes and rivers. With proposed listing of lynx, winter recreation planning is a need,” (Overview Summary, page 10). “Some recreation sites in the Region are near or are exceeding their capacity for use,” (Overview Detailed Report, page 143).

### **1.8.10 Idaho Panhandle and Lolo National Forest Plans**

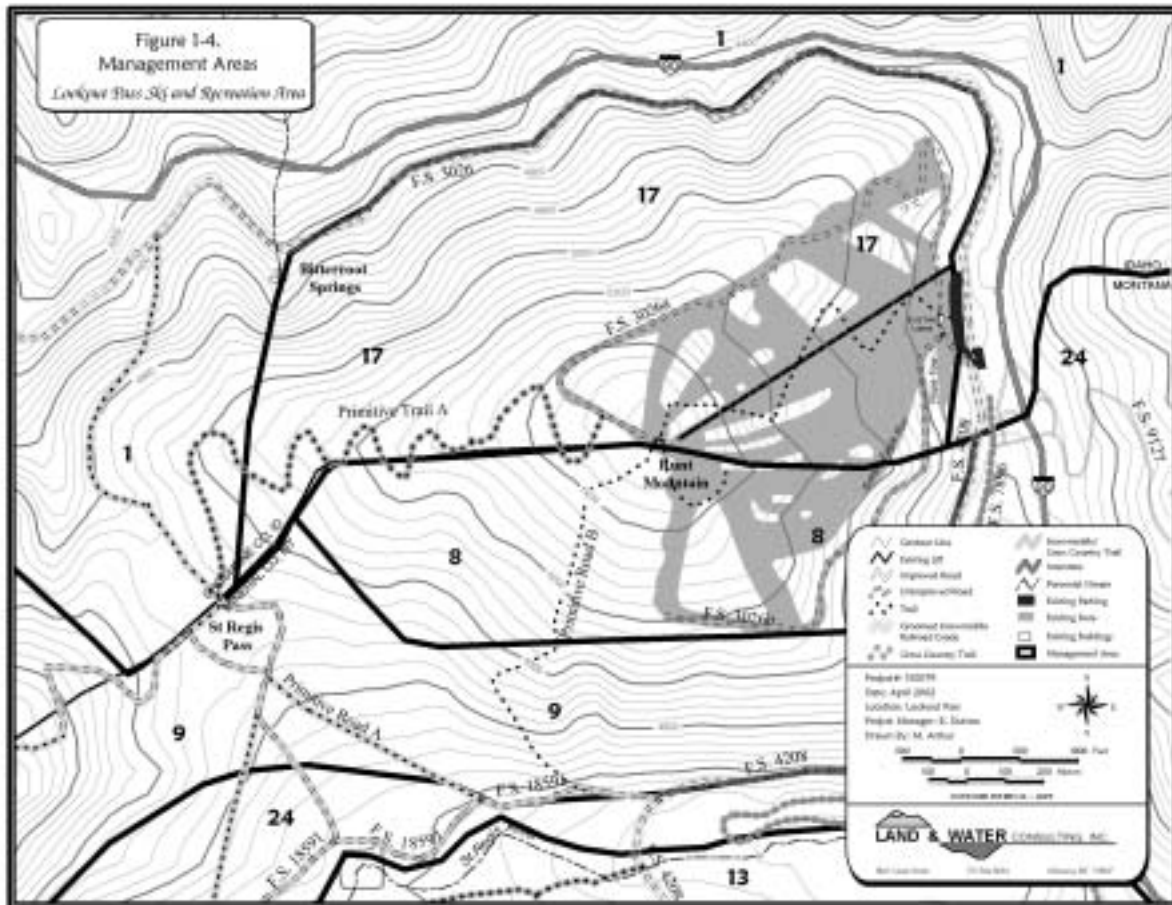
General management direction for the National Forests is found in the Forest Plans, which provide Forest-wide goals and objectives. The Idaho Panhandle National Forests Plan (IPNF, 1987a) and Lolo National Forest Plan (LNF, 1986a) established Forest-wide multiple use goals, objectives, and Management Area (MA) prescriptions and standards. The Forest Plans placed the existing LPSRA in two Management Areas: MA 17 and MA 8 (**Figure 1-4**). Alternative B would expand the ski area in MA 1 and MA 17 of the IPNF and MA 8, MA 9, and MA 24 of the LNF. Alternatives C and D would expand into MA 17 of the IPNF and MA 8, MA 9, and MA 24 of the LNF. Each of the Management Area goals is discussed below. Management Area goals and standards for timber harvest, recreation, road construction, and visual quality objectives are summarized in **Table 1-1**.

Management Area 13 on the LNF would not be directly affected by the action alternatives. The potential indirect effects to the St. Regis River in MA 13 are evaluated in this document (see **Chapter 4 – Water Resources and Fisheries**).

The Management Area goals allow for either dispersed or developed recreation and some timber production, while protecting natural resources such as water quality, wildlife, fisheries,

soil productivity, and visual resources. The Management Area goals do not make an "irreversible and irretrievable" commitment of resources to developed recreation or other resource uses. Accordingly, the analysis of the proposed action will examine **whether** to develop, not just **how to** further develop the ski area; i.e., the "No Action Alternative" will be considered.

Figure 1-4 – Management Areas



**Table 1-1 Key Management Area Goals and Standards Regarding the Proposed Action**

Management Areas	Timber Harvest Emphasized <sup>1</sup>	Timber Removal Conditional <sup>2</sup>	Developed Recreation Emphasis	Dispersed Recreation Emphasis	Roads Allowed (to Site Design Standards)	Visual Quality Objective
IPNF MA 1	X			X	X	Depends on Sensitivity Level Maps (Mapped VQO of "Retention")
IPNF MA 17 (existing ski area)		X	X		X	Depends on Sensitivity Level Maps (Mapped VQO of "Retention")
LNF MA 8 (existing ski area)		X	X		X	Modification
LNF MA 9		X	X <sup>3</sup>	X	X	Specific to each recreation area plan (Mapped VQO is "Retention" & "Partial Retention")
LNF MA 24		X		X	X	Retention

<sup>1</sup>While ensuring protection of various natural resources.

<sup>2</sup>Secondary to other management activities. In some cases, this unit is unsuitable for timber production.

<sup>3</sup>Expansion of LPSRA is allowed if environmental analysis shows it to be in the public interest.

### **Idaho Management Areas 1 and 17**

Management Area 1 of the IPNF would be affected by Alternative B. This management area consists of lands designated for timber production that are distributed throughout the Forest. The goals of MA 1 are to:

- *"Provide cost-effective timber production, protect soil productivity, meet or exceed state water quality standards;*
- *Provide wildlife habitat, provide opportunities for dispersed recreation; and*
- *Meet visual quality objectives."*

Management Area 17 would be affected by Alternatives B, C and D. It includes existing and proposed developed recreation sites. The existing LPSRA is located within this unit. The goals of MA 17 are to:

- *"Manage for developed recreation opportunities in a roaded natural and rural recreation setting;*
- *Manage to protect and enhance a natural appearing environmental and the opportunities for social interchange between users."*

The standards for each Management Area are discussed in **Chapter 4** for each resource.

### **Montana Management Areas 8 and 9**

The Montana side of the existing ski area is located in Management Area 8 of the Lolo National Forest (LNF, 1986a). The expansion area would be located in Management Areas 8 and 9 of the Lolo National Forest. Management Area 8 includes existing ski areas under Special Use



Permits with the Forest. The goals of MA 8 are to provide opportunities for developed recreation facilities to accommodate downhill skiing.

Management Area 9 includes parts of the Forest that receive concentrated public use. The numerous primitive trails on the south side of Runt Mountain and St. Regis Pass are included in this Management Area. The goals of MA 9 are to:

- *“Provide for a wide variety of dispersed recreation opportunities in a forest setting available to a wide segment of society;*
- *Provide for management of other resources in a manner consistent with the recreation objectives;*
- *Provide for acceptable levels of water quality and fisheries habitat; and*
- *Improve opportunities for dispersed recreation.”*

### ***Montana Management Area 24***

Snowmobile Reroute #2 on the south side of Runt Mountain would affect a small portion of Management Area 24 on the LNF. This alternative trail is included in each action alternative. The goals of MA 24 are to achieve the visual quality objective of Retention, and to provide for healthy stands of timber within the constraints of the visual quality objective, while providing for dispersed recreation, wildlife habitat, and livestock use.

The applicable standards to the action alternatives for each Management Area are discussed in **Chapter 4** for each resource.

### ***Forest Plan Changes***

A decision to implement an action alternative would initiate changes in portions of the Idaho Panhandle and Lolo National Forest Plans. A summary of the potential changes is provided in **Table 1-2**. The action alternatives would change portions of:

- Management Areas 1 and 17 of the IPNF and MA 9 of the LNF, which are managed for the visual quality objective of “Retention” next to Interstate 90.
- Management Area 9 of the LNF, which specifies: *“Any recreational area plan developed will be incorporated into the Forest Plan as an amendment”*.

Alternative B would change part of Management Area 1 of the IPNF, which is managed for timber harvest and dispersed recreation. Management Area 9 of the LNF states that *“Expansion of Lookout Pass Ski Area into this Management Area may be permitted, if the results of an environmental analysis indicates that such an expansion is in the public interest”*.

**Table 1-2: Forest Plan Changes Initiated by Each Alternative**

<b>Management Area Guidelines</b>	<b>Alternative A – No Action</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>
MA-1 and MA-17: “Retention” Visual Quality Objective near Interstate 90	No change required (although current situation does not meet retention)	Change VQO to “Modification” for parts of MA-1 and MA-17	Change VQO to “Modification” for part of MA-17	Change VQO to “Modification” for part of MA-17
MA-9: Dispersed recreation emphasis	No change required	Change part of MA-9 from dispersed to developed recreation	Change part of MA-9 from dispersed to developed recreation	Change part of MA-9 from dispersed to developed recreation
MA-9: Environmental analysis required prior to allowing developed recreation	No analysis required	NEPA Analysis and this Environmental Impact Statement (EIS) Required	NEPA Analysis and this Environmental Impact Statement (EIS) Required	NEPA Analysis and this Environmental Impact Statement (EIS) Required
MA-1: Timber harvest and dispersed recreation emphasis	No change required	Change part of MA-1 from dispersed recreation and timber harvest to developed recreation	No change required	No change required

### ***Inland Native Fish Strategy***

In development of the alternatives considered for the LPSRA proposal, standards and guidelines of the Inland Native Fish Strategy were used specifically to protect water and aquatic biota. The Inland Native Fish Strategy was prepared in July 1995, to provide interim direction to protect habitat and populations of resident native fish outside of anadromous fish habitat in eastern Oregon, eastern Washington, Idaho, western Montana, and portions of Nevada (USDA Forest Service, 1995). Under the authority of 36 CFR 219.10(f), the decision amended Regional Guides for the Forest Service’s Intermountain, Northern, and Pacific Northwest Regions and Forest Plans in the 22 affected Forests, including the Idaho Panhandle National Forest. Please refer to the Inland Native Fish Strategy discussion under “Features Common to All Action Alternatives” in Chapter 2 and to the Project Files for more specific information.

#### **1.8.11 Coeur d'Alene River Basin Geographic Assessment**

The Geographic Assessment (Toward an Ecosystem Approach: An Assessment of the Coeur d'Alene River Basin,” USDA Forest Service, February 1998) provides information regarding the ecological conditions specific to the Coeur d'Alene River Basin. The recommendations and strategies presented in the Geographic Assessment were based on three major groups of findings: 1) social and economic, 2) landscape and terrestrial, and 3) aquatic. The findings of the assessment are consistent with the findings of the Upper Columbia River Basin findings. “Annual monitoring in the Coeur d'Alene River Basin indicates that recreational use is increasing at developed sites (such as campgrounds) and in dispersed areas (e.g., backcountry use),” (Geographic Assessment, page 23). “Of the recreational activities in the Coeur d'Alene River Basin, we found that from 1990 to 1995, the top five activities have been automobile travel, gather forest products (berries, mushrooms), snowmobiling/skiing, camping, and big game hunting, in that order,” (Geographic Assessment, page 23).

#### **1.8.12 Migratory Bird Executive Order**

On January 10, 2001, President Clinton signed an Executive Order describing the Responsibilities of Federal Agencies to Protect Migratory Birds, directing executive departments and agencies to take certain actions to further implement the Migratory Bird Treaty Act. Section 3 of the Order states, “Each Federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations is directed to develop and implement,

within 2 years, a Memorandum of Understanding (MOU) with the Fish and Wildlife Service (Service) that shall promote the conservation of migratory bird populations.” Item e-6 directs that each agency shall “ensure that environmental analyses of Federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern.”

The LPSRA EIS evaluates effects of the proposed activities on neotropical (migratory) birds, as disclosed in Chapter 4 (Wildlife). As more information and direction related to this Executive Order becomes available, the analysis and documentation related to the LPSRA project will be reviewed to determine whether a correction, supplement, or revision to the EIS is necessary, in compliance with Forest Service Handbook 1909.15 (Chapter 18).

### **1.8.13 Other Legal Mandates**

In addition to compliance with Forest policy and the legal mandates discussed above, each resource discussion in Chapter 4 addresses how well each alternative would meet applicable legal mandates (“Consistency With Forest Plan and Regulatory Framework”).

## **1.9 SKI AREA HISTORY**

Downhill skiers have frequented the day-use ski area at Lookout Pass since 1934, when the first rope tow was installed on Runt Mountain. The Lookout base lodge is the second-oldest ski lodge in the Pacific Northwest and was built in 1941 by the Civilian Conservation Corps and Forest Service. Ski facilities were first operated by the Idaho Ski Club, a volunteer organization with members from Kellogg, Wallace, and Mullan, Idaho. The ski area was maintained by volunteer labor and donated materials provided by local people. The Idaho Ski Club raised funds for operations and improvements until it sold the ski area in 1992. The Lookout Pass Free Ski School was organized in 1942 and continues today. Rope tows served the hill until 1956 when the first Poma lift was installed. The lodge was expanded in 1961 and a second Poma lift was installed in 1967. The Idaho Ski Club conducted a major fund drive and replaced the Poma lifts with a double chairlift in 1982. A rope tow that was installed in 1984 still serves the beginner terrain (Lookout Recreation, Inc., 1992).

Lookout Pass ski area was developed to provide affordable winter recreation for residents of the Silver Valley (generally the Mullan to Kellogg, Idaho area). The Silver Valley economy has been tied to mining for the past 120 years. The ups and downs of the mining industry affected Lookout Pass ski area, especially the closure of most mines in the 1980s. The ski area and the local economy struggled economically in the late 1980s and early 1990s (see **Chapter 3 – Socioeconomics**). In 1992, the Idaho Ski Club sold the ski area under the condition that the new owners continue the traditions of the past. Key portions of the sale agreement included:

- 1) The perpetuation of the Free Ski School;
- 2) Full-time ski area management and dedication to expand the area (lodge expansion and a second chairlift); and
- 3) A commitment to maintain the family-oriented and affordable atmosphere.

In 1997, the IPNF accepted the conceptual Master Development Plan (MDP) for expansion of Lookout ski area. After the acceptance of the MDP, each element of the plan must undergo

analysis under the National Environmental Policy Act (NEPA). The MDP included three phases that would be completed in stages from 1997 to 2008:

- Phase 1: A slalom pipe or “half-pipe”, base area landscaping, rental shop stairs, packer building completion, summer trails, and expansion of the ski patrol hut.
- Phase 2: Expansion of the lodge, a second chairlift, expansion of the retail/rental shop, and parking lot expansion.
- Phase 3: A third chairlift and overnight accommodations.

The NEPA analysis (categorical exclusion and decision memo) was completed in 1997 to develop additional ski runs and a snowboard “half-pipe” on the south side of Runt Mountain. The IPNF also approved the construction of base area landscaping, rental shop stairs, packer building completion, summer trail construction for mountain bike and hiker use, expansion of the ski patrol hut, lodge expansion, and expansion of the rental/retail shop. The IPNF determined that construction of the additional chairlifts and parking lot would require additional analysis under NEPA (an environmental assessment or impact statement).

One of the approved ski runs and a half-pipe were constructed in 1997. The 1,100-foot half-pipe was constructed in a large excavation created by previous mining activity. A ski-way trail approximately 3,880 feet long was constructed to lead half-pipe users back to the base area. An additional ski run and tree removal was approved by the IPNF using a Categorical Exclusion during 1999. The construction of the ski run and tree removal occurred in 2001.

In September 1999, the ski area was sold again to Lookout Associates, LLC, an organization committed to the original sale conditions. Lookout Associates, LLC, the Idaho Ski Club, and the Free Ski School are all actively pursuing the successful continuation of the ski area.

***Forest Supervisor Ranotta McNair is the responsible official for this proposal. For further information, please contact Kerry Arneson at the Fernan Office of the Coeur d’Alene River Ranger District, (208) 664-2318.***

## CHAPTER 2 ALTERNATIVES

### 2.1 INTRODUCTION

This chapter describes the alternatives considered to achieve the purpose and need discussed in Chapter 1. The National Environmental Policy Act (NEPA) regulations require federal agencies to “identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment” (40 CFR 1500.2(e)). This chapter discloses the sources of analysis direction and guidance, alternative development (including public involvement), features common to all alternatives (including monitoring and mitigation), and a comparison of alternatives and their effects.

### 2.2 SCOPING AND ALTERNATIVE DEVELOPMENT

#### 2.2.1 Scoping

The first step in environmental analysis is to determine what needs to be analyzed. To do this the NEPA outlines a process termed “scoping” (refer to 40 CFR 1501.7). This is an open process designed to determine the potential issues associated with a proposed action and then, from this list, to further identify those issues that are significant to the decision and those which are not significant or which have been covered by prior environmental review and therefore should be eliminated from detailed analysis. The public was first notified of this project through the "Quarterly Schedule of Proposed Actions" for the Idaho Panhandle National Forests, beginning in the fall of 1999. Scoping activities also included legal ads, a notice of intent to prepare an environmental impact statement (published in the Federal Register on April 21, 2000), and newspaper articles. Before the NOI was published, the IPNF mailed a Scoping Notice on April 17, 2000 that included a summary and maps of the proposed action to over 300 individuals, organizations, and media outlets. Public comments were accepted well beyond the 30-day scoping period and are summarized in **Appendix C**. A complete set of scoping comments and a content analysis are available in the project file.

#### 2.2.2 Issues

Responses to the Scoping Notice were received from 29 individuals and groups. Public and agency comments concerning the scope of the EIS were evaluated and summarized in a content analysis report. Scoping comments and the content analysis are available for viewing in the project files. The content analysis identified issues which were used by the EIS team to design alternatives and focus evaluations:

- **Recreation – Snowmobiling, Cross-Country Skiing, Ski Area Terrain, Free Ski School:** Information about recreation is presented in Chapter 3 – Recreation. Effects on recreation are addressed in Chapter 4 – Recreation and in Chapter 2 – Comparison of Alternatives. Important units of measure for recreation include miles of acres of ski terrain, difficulty of ski terrain, numbers of lifts, days of operation, length of trails, costs, and size of parking facilities.

- **Snowmobile Trails:** The proposed action appears to utilize portions of the groomed snowmobile trail (abandoned railroad grade FS 3026 and 4208) for lift stations on the north and south sides of Runt Mountain. Will the lift stations and associated runs cause user conflicts with snowmobiles? If so, can the ski runs and lifts or snowmobile trail be redesigned to avoid user conflicts? Information about snowmobile trails is presented in Chapter 3 – Recreation. Effects on snowmobile trails are addressed in Chapter 4 – Recreation and in Chapter 2 – Comparison of Alternatives. Important units of measure for snowmobile effects include miles of trails and size of parking facilities.
- **Cross-Country and Backcountry Use:** Cross-country trails currently access the south and west sides of Runt Mountain, which is in an undeveloped state except for roads and 4-wheel drive trails. The proposed action would remove this area from dispersed recreation and use it for developed recreation. Some skiers objected to this change in use. Information about cross-country and backcountry use is presented in Chapter 3 – Recreation. Effects on cross-country and backcountry use are addressed in Chapter 4 – Recreation. Important units of measure for cross-country and backcountry use include miles of trails and size of parking facilities.
- **Socioeconomics Including Need, Feasibility, Profit, Taxes, Jobs, Economic Benefit, Increased Population And Ski Area Use, Recreation Costs and Availability Of Free Ski School:** Information about these resources is presented in Chapter 3 – Socioeconomics. Effects on these resources are addressed in Chapter 4 – Socioeconomics and in Chapter 2 – Comparison of Alternatives. Important units of measure for these issues include number or skier visits, increase over time, population growth, tax base, tax structure, employment figures and history of operation.
- **Wildlife:** Over the years, development and land uses have altered wildlife habitats in the Lookout Pass area. What are the direct, indirect, and cumulative effects to wildlife habitats due to the proposed action? What are the anticipated effects of the alternatives to threatened, endangered, and proposed listed species; management indicator species; sensitive species; species of special concern; commonly hunted species; and habitat fragmentation? Information about wildlife is presented in Chapter 3 – Wildlife. Effects on wildlife are addressed in Chapter 4 – Wildlife and in Chapter 2 – Comparison of Alternatives. Threatened, Endangered and Species of Special Concern are also addressed in a Biological Assessment/Biological Evaluation which is available in the project file and which received concurrence from the Fish and Wildlife Service. Important units of measure for wildlife include numbers of animals, acres of habitat and acres of vegetation change.
- **Vegetation including Timber, Endangered/Threatened/Sensitive Plants, Noxious Weeds and Old Growth:** Information about vegetation is presented in Chapter 3 – Vegetation. Effects on vegetation are addressed in Chapter 4 – Vegetation and in Chapter 2 – Comparison of Alternatives. Important units of measure for vegetation resources include the numbers of TES plant species affected, the numbers of noxious weeds present and acreages of effects to existing vegetation cover, noxious weeds, wetlands, riparian areas and old growth.
- **Watersheds, Water Quality and Aquatic Habitats:** Information about these resources presented in Chapter 3 – Water Resources. Effects on these resources are addressed in Chapter 4 – Water Resources and Fisheries and in Chapter 2 – Comparison of Alternatives. Important units of measure for these issues include percent increase in stream flow caused

by timber removal, acreages of vegetation disturbance and grading, the distance of activities to streams, the length of temporary roads and the number of temporary culverts.

- **Fisheries:** Information about fisheries is presented in Chapter 3 – Fisheries Resources. Effects on drainage problems are addressed in Chapter 4 – Water Resources. Effects on fisheries are addressed in Chapter 4 – Fisheries. Important units of measure for fisheries include the acreages of vegetation disturbance and grading, the distance of activities to streams, the length of temporary roads and the number of temporary culverts.
- **Springs, Wetlands and Riparian Areas:** Runs and ski lifts from the proposed action appear to intersect springs, wetlands, riparian areas, and a perennial stream. One spring (the Bitterroot Springs) is on the north side of Runt Mountain and wetland and riparian areas are on the south side of Runt Mountain. The Bitterroot Springs and associated riparian and wetland areas on the north side of Runt Mountain are the source of an unnamed perennial stream. A large wetland area on the south side of Runt Mountain appears to be used for a ski run. What are the direct, indirect, and cumulative effects to the wetlands, riparian areas, and perennial stream? Would impacts to the wetlands and streams affect fish in the St. Regis and South Fork of Coeur d'Alene River? Can runs and lifts be designed to avoid these areas? Are there threatened, endangered, or sensitive plants in these areas? Information about springs, wetlands and riparian areas is presented in Chapter 3 – Water Resources and Chapter 3 - Vegetation. Effects on springs, wetlands and riparian areas are addressed in Chapter 4 – Water Resources and Vegetation and in Chapter 2 – Comparison of Alternatives. Important units of measure for these resources include acres of disturbance, TES species supported and distance to streams.
- **Drainage Problems on the South Side of Runt Mountain:** Water draining from the wetland area on the south side of Runt Mountain has been causing erosion problems on a primitive 4-wheel drive road (Primitive Road A), which is used by snowmobiles, cross-country skiers, all-terrain vehicles, mountain bikes, and hikers. Spring run-off currently washes snow off of the road, preventing easy use by snowmobiles and cross-country skiers. Will the proposed action remedy drainage problems on the road? Information about drainage problems is presented in Chapter 3 – Water Resources. Effects on drainage problems are addressed in Chapter 4 – Water Resources and in Chapter 2 – Comparison of Alternatives. Important units of measure for drainage problems include the number of sites treated and the allowed uses (i.e. vehicles, skiers, hikers).
- **Soil Resources Including Erosion and Productivity:** Information about soil is presented in Chapter 3 – Soil Resources. Effects on soil are addressed in Chapter 4 – Soils and Slope Stability and in Chapter 2 – Comparison of Alternatives. Important units of measure for soil resources include the acreages of vegetation disturbance and grading, the length of temporary roads and the number of temporary culverts.
- **Air Quality:** Information about air quality is presented in Chapter 3 – Air Quality. Effects on air quality are addressed in Chapter 4 – Air Quality. Important units of measure for air quality include acres of slash disposal by burning and numbers of vehicles.
- **Roadless Areas:** Information about roadless areas is presented in Chapter 3 – Roadless Areas. Effects on roadless areas are addressed in Chapter 4 – Roadless Areas. No roadless areas are within or adjacent to the project area or would be affected by the proposed action.

- **Parking, Transportation and Access:** Information about parking, transportation and access is presented in Chapter 3 – Recreation. Effects on parking, transportation and access are addressed in Chapter 4 – Roadless Areas and Chapter 2 – Comparison of Alternatives. Important units of measure for these resources include the acreages of parking, road closures or restrictions, miles of roads and numbers of roads.
- **Visual Resources:** Information about visual resources is presented in Chapter 3 – Visual Resources. Effects on visual resources are addressed in Chapter 4 – Visual Resources. Important units of measure for visual resources are contained in the Visual Quality Objectives (VOQs) and the Visual Management System ratings (VMS).
- **Avalanche Safety:** Avalanche safety was eliminated from further analysis since the ski area will conduct an avalanche hazard evaluation and control program within the permit area and since avalanche safety for recreationists outside the permit area is beyond the scope of this analysis.
- **Snowmaking and Night Skiing:** Snowmaking and Night skiing were eliminated from further analysis since none are planned under the current proposal or in the foreseeable future.
- **Range:** Range was eliminated from further analysis since no grazing allotments or grazing resources exist in the permit area.

### 2.2.3 Alternative Development and Modification

Public comments on the proposed action were collected by the Idaho Panhandle National Forest (IPNF) during the scoping process and during the comment period on the Draft EIS (see **Section 1.7 – Public Comment**). Alternatives to the proposed action were developed and refined after receiving public comment. The initial proposal by LPSRA is called Alternative B in this document. Alternative A is the “No Action Alternative”. The “proposed action” or “action alternatives” include Alternatives B, C, and D (**Figures 2-1, 2-2 and 2-3**). Alternative D is the Forest Service preferred alternative. Compared to the other action alternatives, Alternative D would have the smallest disturbed area and the fewest impacts to wildlife and existing recreation uses.

After releasing the DEIS, public and agency comments on Alternatives A, B, and C were collected by the IPNF during the DEIS comment period. Public and agency comments and IPNF responses are summarized by topic in **Chapter 5 – Comments and Responses**. Review of these comments indicated that additional or refined alternatives were needed to address issues related to recreation and wildlife. Chief among these concerns was that Snowmobile Reroute #1 in Alternative C would cause a shift in snowmobile use from the abandoned railroad grade to St. Regis Pass, increasing use and access to backcountry areas and wildlife habitat in the St. Regis Basin and the Montana/Idaho Divide. Other concerns about Snowmobile Reroute #1 were raised regarding the steepness of the proposed groomed snowmobile trail over St. Regis Pass. Options to reduce the steepness of the trail are analyzed for Alternative C in this document. In addition, the proposed snowmobile trail over St. Regis Pass was eliminated for Alternative D, which would retain existing groomed snowmobile trails.



## 2.2.4 Alternatives Considered but Eliminated from Detailed Study

NEPA regulations require that the EIS discuss the reasons for eliminating any alternative explored but not developed in detail (40 CFR 1502.14(a)). The following alternatives were proposed in the public comment period:

- Upgrading the existing ski lift;
- Developing one side of Runt Mountain only; and
- Dual use of the railroad grade on the north side of Runt Mountain.

These alternatives were eliminated from detailed study because they do not meet the Purpose and Need as stated in **Chapter 1** or for other reasons described below.

### ***Upgrading the Existing Ski Lift***

Several DEIS comments recommended upgrading the existing ski lift with another ski lift to address ski lift crowding problems at LPSRA. This would involve either adding another double chair lift parallel to the existing chair lift or replacing the existing chair lift with a triple or “quad” chair lift. The hourly capacity of the chair lift would be increased by either 1.5 or 2.0 times the existing capacity under this alternative. However, the following factors limit the attractiveness of this option:

- Expanded chair lift capacity alone would not meet the need for additional advanced and intermediate ski terrain to enhance the skiing experience and reduce skier congestion on the ski slopes;
- An additional double chair lift parallel to the to the existing lift would be affordable, but would not meet the need to eliminate crowding at the base of the ski lift near the lodge area; and
- Triple and “quad” chair lifts are very expensive. The need for affordable skiing to continue and the economic need for LPSRA to maintain a viable operation would not be met.

Because of the reasons stated above, this alternative does not meet the “purpose and need” of the proposed action. The No Action Alternative and Alternative D address wildlife and recreation issues regarding the proposed action.

### ***Developing One Side of Runt Mountain Only***

Several public comments suggested that only one side of Runt Mountain be developed for additional skiing, leaving the other side undeveloped. Some comments supporting developing only the Lolo National Forest side, whereas other comments supported developing only the Idaho Panhandle side of Runt Mountain. Issues driving this suggestion centered on:

- Elimination of backcountry use within a user’s favorite spot to recreate by snowmobile, cross-country, or backcountry skiing; or
- Concern that wildlife habitat would be more adversely affected on one side of Runt Mountain or the other.

Recreation use for each alternative was evaluated in detail (**Chapter 4 – Recreation**). Each action alternative would eliminate areas of backcountry ski use on both the north and south sides of Runt Mountain. Public comments favored developing one or another side of Runt Mountain, depending upon their favorite backcountry ski or snowboard location. Some backcountry skiers and snowboarders use the LPSRA chair lift to access the top of Runt

Mountain and then ski or snowboard down the open glades on the south side of Runt Mountain. Roads FS 18591 and FS 4208 are then used to return to the LPSRA base area. Skiers and snowboarders also use the north side of Runt Mountain, where trees are denser, but snow conditions tend to be better than the south side of Runt Mountain. The LPSRA base area is then accessed by hiking or skiing along FS 3026 or Interstate 90.

Impacts to snowmobile traffic would be greater for Alternatives B and C than Alternatives A (No Action) and D. The groomed snowmobile trail on the north side of Runt Mountain would be closed under Alternative B and rerouted under Alternative C. In contrast, Alternatives A and D would not affect the snowmobile trail on the north side of Runt Mountain. Therefore, the No Action Alternative (Alternative A) and Alternative D address recreation issues regarding selective development of the north versus the south sides of Runt Mountain.

Under the action alternatives, adverse impacts to wildlife and wildlife habitat would be about the same for each side of Runt Mountain (see **Chapter 4 – Wildlife**). More riparian habitat would be affected under some alternatives on the north side, whereas more wetland habitat would be affected under some alternatives on the south side of Runt Mountain. Riparian habitat on the north side of Runt Mountain would be affected under Alternative B (and possibly C) where ski area development would occur near Bitterroot Springs. Wetland habitat on the south side of Runt Mountain would be affected under each action alternative, but impacts would be significantly greater under Alternative B than the other alternatives.

In summary, selective development of the north versus the south side of Runt Mountain was not studied in detail because: 1) there are no clear recreation or wildlife issues driving development of one side of the mountain versus the other; and 2) this alternative does not meet the purpose and need of the proposed action to reduce crowding and provide additional ski experiences and terrain.

### ***Dual Use of the Railroad Grade on North Side***

Dual (snowmobile and downhill ski) use of the abandoned railroad grade on the north side of Runt Mountain was suggested as an alternative to address recreation and wildlife issues raised in public comments. This suggested alternative would affect the same area as Alternative C, except that no groomed snowmobile trail would be established over St. Regis Pass. Snowmobiles and downhill skiers would share use of the railroad grade (FS Road 3026) on the north side of Runt Mountain. Wildlife and recreation impacts related to St. Regis Pass Snowmobile Route #1 would not occur.

This alternative was evaluated by comparing the width of the abandoned railroad grade to the requirements for Alternative C ski runs and lifts, and the requirements of a groomed snowmobile trail. The railroad grade was also examined to determine if it could be widened for the dual use alternative.

The abandoned railroad grade varies in width from 32 to 85 feet of running surface. The bottom of the ski lift on the north side of Runt Mountain for Alternative C would be constructed adjacent to the railroad grade where it is about 32 feet wide. At least 30 feet of the 32-foot wide railroad grade would be needed for skier access and lift lines at the bottom of the lift. This would leave 2 feet of the railroad grade for the snowmobile trail, which would require both skier and snowmobile users to operate in the reduced spaces.

The ski runs enter the railroad grade in areas where steep cut-slopes above the railroad grade would have to be graded to ease ski run transitions to the railroad grade. Grading to ease transitions to ski slopes would narrow the railroad grade by as much as 15 feet in areas where the railroad grade is currently 32 feet wide. This would leave 17 feet of running surface below the ski runs for both skiers and snowmobiles. Groomed snowmobile trails require at least 8 feet of running surface (FSH 2309.18 – Trails Management Handbook), leaving 9 feet of the trail for skiers. These widths preclude safe operating conditions, especially where the trail intersects steep slopes and skiers need space for stopping.

The slopes below the railroad grade were evaluated to determine if the railroad grade could be widened. This evaluation indicated that slopes below the railroad grade are very steep (35 to 40 degrees or 70 to 85 percent), composed of cut slopes and retaining walls above Interstate 90. These slopes would become unstable if additional fill was added adjacent to the railroad grade. Additional excavation into the uphill side of the railroad grade is also limited by cut slopes and proposed regrading for ski runs.

The dual use alternative was not evaluated in further detail because of:

- Insufficient width along railroad grade for both downhill skiers and snowmobiles; and
- It is not possible to widen the railroad grade.
- Alternative D addresses the St. Regis Pass recreation and wildlife issues raised in the DEIS comment period, by maintaining the existing railroad grade as a snowmobile trail and moving the lift and runs of Alternative C further up the mountain.

## **2.3 ONGOING AND REASONABLY FORESEEABLE ACTIVITIES**

Activities within the cumulative effects analysis area that have a reasonable chance of occurring have been identified. This helps to establish the appropriate geographic and temporal (time) boundaries for the cumulative effects analysis.

### **2.3.1 Reduced Congestion at the East Portal/Taft Tunnel Parking Lot**

The ski and recreation area owners anticipate that use of the “Route of the Hiawatha” bicycle concession will increase, regardless of the proposed action. Improvements to the Route (not proposed by LPSRA) brought an increase in visitors during 2001 after the 1.8-mile long St. Paul Pass “Taft” Tunnel was opened. Use of the trail jumped from 10,900 customers in 2000 to 19,200 customers in 2001. The abandoned Northern Pacific railroad grade at Lookout Pass (FS 4208) could connect to the Hiawatha Trail near the Taft Exit on Interstate 90 in Montana, if easements were granted. A bicyclist could rent a bike at LPSRA, ride 10 miles downhill to Taft, then ride through the tunnel and down the Hiawatha Trail to Pearson, Idaho. The LPSRA parking lot could help alleviate congestion and vehicle trips to the new East Portal/Taft Tunnel parking lot that opened concurrently with the Taft Tunnel.

## **2.4 OPPORTUNITIES**

The following are project components that could complement and improve ski area facilities or resource conditions within the project area. These project components are not considered mandatory for project implementation nor are they guaranteed to be implemented. They may

be accomplished if approved and if funding is available. The anticipated effects of implementing these activities are described below and are analyzed by resource in Chapter 4.

### **2.4.1 Overnight Lodge Use**

The proposed action includes the opportunity to create 8 rooms for overnight lodging in the skier services building. There is a need for overnight lodging at the LPSRA to fill several needs. Ski area personnel are required to work early and late hours and the availability of lodging would reduce the need for commuting especially when weather and snow conditions are extreme. Lodging would also eliminate commuting for organizers/participants of environmental education and other programs. Overnight facilities are expected to draw about 1200 people per summer, based on two people per room and 50% occupancy. The trail improvements on the Hiawatha and ongoing promotion of the trail by the LPSRA are generating visitor growth that is not related to the proposed action. However, the added overnight and guest services proposed at LPSRA may promote increased summer use of the trail. Increased use of the Hiawatha trail would bring additional user fees for trail maintenance and improvements.

### **2.4.2 20 RV Hookups in the Parking Area**

The proposed action includes the opportunity to create 20 RV hookups in the parking area for summer use. These hookups would include water, electricity and sewer dump services and would allow LPSRA users another summer on-site lodging option. RV facilities would draw about 3000 people per summer, based upon two people per RV and 50% occupancy. Implementing this opportunity would also add to the economic viability of the LPSRA.

### **2.4.3 Lift-Assisted Mountain Biking**

The proposed action includes the opportunity for lift-assisted mountain biking in the foreseeable future. LPSRA has had bicycle tours and races in the past. Existing single-track and 4-wheel drive trails on Runt Mountain are currently used by mountain bikes and would continue to be used in the future. This summer use at the ski area would also tie in with the Hiawatha attraction. The effects of this opportunity would include the potential for increased soil erosion and weed spread although there are effective mitigation measures for each. Implementing this opportunity would also add to the economic viability of the LPSRA.

## **2.5 ALTERNATIVE DESCRIPTIONS**

The alternatives considered in detail include the No Action Alternative (Alternative A) and the action alternatives (Alternatives B, C and D) that would allow expansion of LPSRA to the north and south sides of Runt Mountain. Each of these alternatives is described below and compared in **Tables 2-1** and **2-5**.

As shown in **Table 2-1**, Alternative B would affect more area than Alternatives A, C, and D. Alternative B would close the groomed snowmobile trail on the north side of Runt Mountain, whereas Alternative C would close the groomed snowmobile trail on the north side of Runt Mountain, but provide an alternate snowmobile route over St. Regis Pass (Snowmobile Reroute #1). Alternative D moves the ski runs and lift on the north side of Runt Mountain further up the hill than Alternatives B and C, and allows the groomed snowmobile trail to remain open.

### 2.5.1 Alternative A - The No Action Alternative

This alternative would maintain the existing ski and snowmobile opportunities at LPSRA (see **Chapter 1** – Background). Specific improvements to the existing area would be evaluated on a case-by- case basis. If separate proposals were submitted, they would be evaluated before approval or rejection using the NEPA process to determine environmental impacts. Separate NEPA documents would be prepared for separate proposals.

The No Action Alternative retains the availability of the area for other resource uses, such as timber management or dispersed recreation. The impacts from the action alternatives to each resource listed in **Chapter 4** would not occur. Soil erosion of Primitive Roads A and B, Primitive Trail A, and Forest road 18591 would continue and no mitigation proposed under the action alternatives would be performed by LPSRA.

### 2.5.2 Alternative B

Alternative B was the original proposal by the applicant. Maps showing Alternative B are provided as **Figures 2-1** and **2-4**. An itemized list of the affected area is provided in **Table 2-1**.

Ski runs and lifts for Alternative B would cover approximately 154 acres. There would be 7105 feet of new chair lifts, and approximately 1000 feet of vertical skiing added to both the north and south sides of Runt Mountain. Approximately 145 acres of trees would be removed for ski runs, lifts, temporary roads, and snowmobile reroutes. About 8.8 acres of new and existing ski runs would be regraded on the north and south side of Runt Mountain to eliminate side-slopes and ease transitions to Forest Roads 3026 and 18591. The total area of National Forest Lands included in the ski area permit boundary would increase from 335 acres to 594 acres.

Approximately 1.7 miles of temporary roads would be added between ski runs for tree removal and chair lift construction. The temporary roads would be reclaimed and revegetated after construction. One permanent culvert extension would be needed for a stream crossing above the abandoned railroad grade (FS 3206) on the north side of the ski area. The stream affected is the perennial drainage from Bitterroot Springs.

As discussed above, one snowmobile trail would be rerouted around the chair lift on the south side of Runt Mountain (Snowmobile Reroute #2). Snowmobiles would be prohibited from accessing the north side of Runt Mountain within the proposed ski area permit boundary on the abandoned railroad grade (FS 3026). The existing snowmobile trail on FS 3026 would be closed between the proposed Bitterroot Lift and the ski area parking lot. Snowmobiles could access St. Regis Pass on an existing snowmobile route, but it would not be improved and groomed, as provided in Alternative C. Snowmobile users would continue to be allowed to park at Lookout Pass and travel south and west on FS 4208 and FS 18591.

### 2.5.3 Alternative C

Alternative C was developed during preparation of the DEIS. A re-evaluation of Alternative C and Snowmobile Reroute #1 is presented in this FEIS in response to public comments on the DEIS. Maps showing Alternative C are provided as **Figures 2-2** and **2-4**. An itemized list of the affected area is provided in **Table 2-1**.

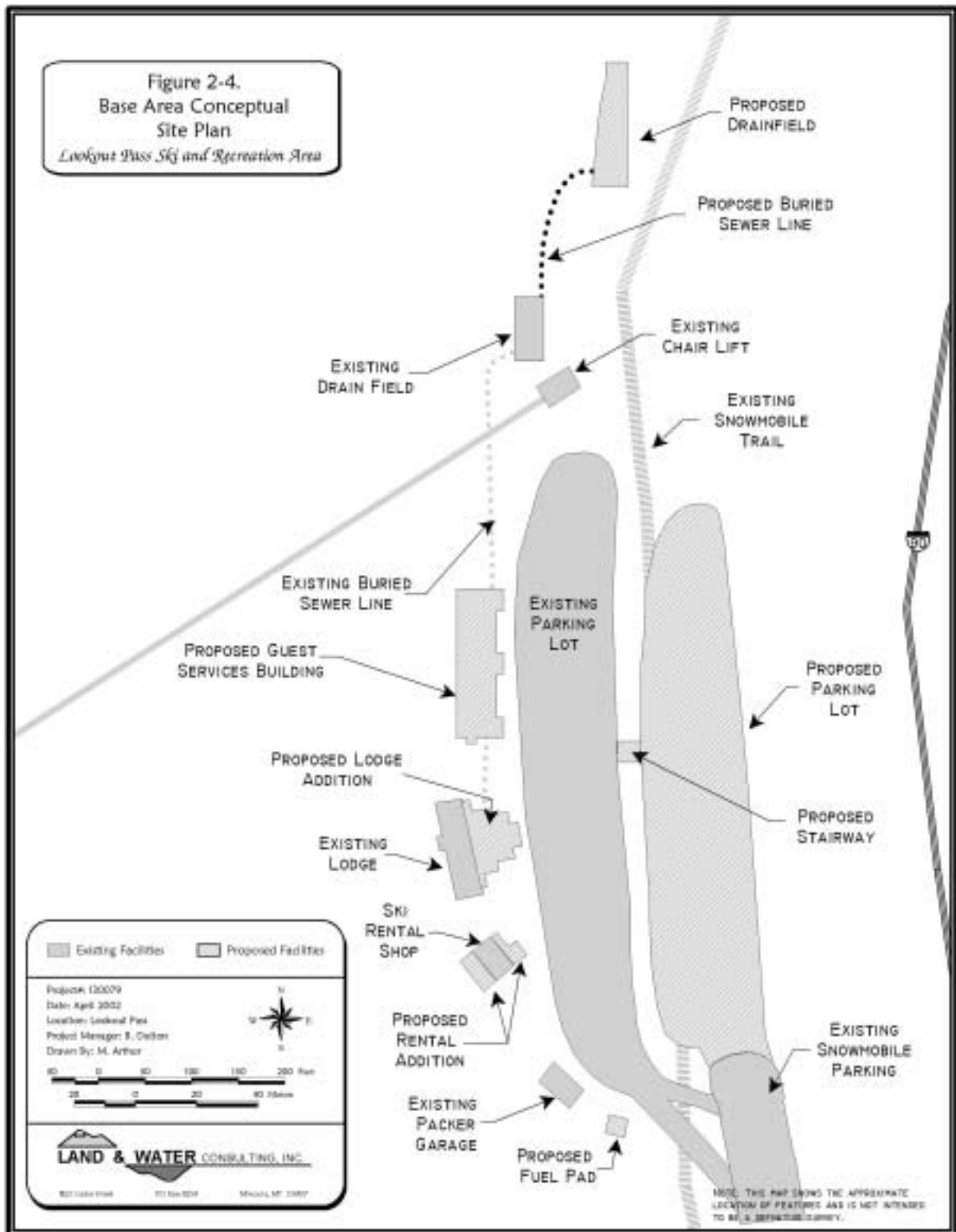








Figure 2-4 - Buildings at the Base Area



Alternative C would:

- Avoid the Bitterroot Springs and its associated wetlands and wildlife habitat on the north side of Runt Mountain;
- Avoid most of a wetland followed by a ski run of Alternative B on the south side of Runt Mountain (see **Chapters 3 and 4** – Vegetation and Wildlife);
- Affect a smaller area than Alternative B and reduce impacts to visual resources (see **Chapter 4**- Visual Resources); and
- Provide two alternative groomed snowmobile trails around Runt Mountain (Snowmobile Reroute #1 and Reroute #2). A revised version of Snowmobile Reroute #1 is presented below.

The proposed action under Alternative C would include approximately 90 acres of new ski runs and chair lifts, 1.2 miles of temporary road, and 5777 feet of new chair lifts. Approximately 1000 vertical feet of skiing would be added on both the north and south sides of Runt Mountain. About 6.4 acres of new and existing ski runs would be regraded on the north and south side of Runt Mountain to eliminate side-slopes and provide easier transitions to Forest Road 3026. The total area of National Forest Lands included in the ski area permit boundary would be modified and would increase from approximately 335 acres to 455 acres.

Two new permanent culverts would be needed on the north side of Runt Mountain under this alternative. One would be installed near the base of the Bitterroot lift to allow a ski run to cross an un-named ephemeral drainage. The second would be constructed along Alternative A of Snowmobile Re-route #1 above Bitterroot Springs.

One existing culvert would be extended on the north side of Runt Mountain to cross an ephemeral drainage near the base of the proposed Bitterroot lift. This culvert extension would allow a ski run to cross this un-named ephemeral drainage.

### ***Snowmobile Reroutes***

Alternative C would include Snowmobile Reroute #1 and Reroute #2. Snowmobile Reroute #2 would be constructed for each action alternative and is discussed above. Snowmobile Reroute #1 is not included in Alternative B and D and would involve reconstructing and grooming a primitive trail over St. Regis Pass. This alternative trail would replace the existing groomed trail, which follows an abandoned railroad grade on the north side of Runt Mountain (FS 3026). The alternative trail would reroute snowmobiles away from the proposed ski runs and lifts on the north side of Runt Mountain.

A portion of the snowmobilers coming out of Mullan, Idaho currently use the trail along Snowmobile Reroute #1 over St. Regis Pass. The trail is not currently groomed, but is packed during regular use by snowmobilers accessing the St. Regis Basin and the State line area. However, the steepness of the trail on the north side of Runt Mountain currently prohibits grooming and beginner snowmobile use. Modifications to the trail would be necessary to decrease the slope of the trail and allow grooming and family use. Potential trail modifications on the north side of the trail are shown in **Figure 2-2**. Earth disturbance related to Reroute #1 would involve constructing new portions of the trail, following either Alternate Route A or B. Disturbance related to these different routes would involve 3600 feet of trail construction for Alternative Route A and 5260 feet of trail construction for Alternative Route B. Approximately 4.2 acres of trees would be removed for Alternative Route A and about 5.5 acres of trees would

be removed for Alternative Route B. The potential impacts of these alternative routes are evaluated in **Chapter 4**.

Signs and snow fences would be used to direct snowmobile traffic onto alternative routes and away from trails designated for cross-country skiing only. Reroutes #1 and #2 would be closed to summer motorized use. Reroute #1 may be open to summer motorized use for special events with Forest Service Special Use Permits, such as the Jeep Jamboree. The closure of roads and trails to wheeled motorized use would take place separate from the proposed ski area expansion.

## **2.5.4 Alternative D**

Alternative D, currently the Forest Service preferred alternative, was developed after collecting public comment on the DEIS. This alternative addresses issues concerning recreation and wildlife habitat related to Alternative C. Alternative D would:

- Retain the groomed snowmobile trail on FS 3026, the abandoned railroad grade on the north side of Runt Mountain;
- Avoid the Bitterroot Springs and its associated wetlands and wildlife habitat on the north side of Runt Mountain;
- Avoid most of a wetland followed by a ski run of Alternative B on the south side of Runt Mountain (see **Chapters 3 and 4** – Vegetation and Wildlife); and
- Affect a smaller area than Alternatives B and C.

Alternative D would not include Snowmobile Reroute #1 over St. Regis Pass as proposed under Alternative C. Snowmobile use would be maintained on the abandoned railroad grade on the north side of Runt Mountain. The proposed ski runs and lifts for Alternative D would be moved higher on the hill to a bench adjacent to the railroad grade. To accommodate this location, ski runs would cover a smaller area than Alternative C.

A map showing Alternative D is provided as **Figure 2-3**. An itemized list of the affected area for each alternative is provided in **Table 2-1**. This comparison shows that Alternative D affects a smaller area than the other two action alternatives.

The proposed action under Alternative D would include approximately 87 acres of new ski runs and chair lifts, 1.2 miles of temporary road, and 5766 feet of new chair lifts. About 4.7 acres of new and existing ski runs would be regraded on the north and south sides of Runt Mountain to eliminate side-slopes. The total area of National Forest Lands included in the ski area permit boundary would be modified and increased from approximately 335 acres to 444 acres.

All action alternatives would mitigate drainage and erosion problems on several roads and trails outside the existing ski area permit boundary. Alternative D would require one permanent culvert extension and one new culvert above the abandoned railroad grade (FS 3026) on the north side of Runt Mountain. These culverts would allow crossing of two un-named ephemeral drainages.

## **2.5.5 Features Common to the Action Alternatives**

This section discusses features common to the three action alternatives (Alternatives B, C, and D shown in **Figures 2-1, 2-2 and 2-3**). Disturbed soil areas for each action alternative would include roads, an expanded parking lot, expanded and new base area buildings, an expanded

septic system, lift tower foundations, lift stations, regrading and revegetating two existing runs, regrading new ski runs, timber harvest sites, repairing erosion problems on existing roads and trails, reclaiming roads, and installing buried water lines and buried power lines. Proposed facilities are itemized in **Table 2-1**. Information for this section was provided by the Master Development Plan for Lookout Pass Recreation Area (LRI, 1997), and Phil Edholm, President and General Manager of LPSRA (pers. comm.).

Construction of the proposed ski runs, lifts, and other improvements would take place in phases over several seasons. The lift and associated trails on the south side of Runt Mountain and the new parking lot would be built during one summer season (preferably the summer of 2002). The following year (2003), the lodge expansion and other building-related remodels would take place. Construction of the lift and trails on the north side of Runt Mountain would take place a following season (2004). The final phase would involve constructing the multi-purpose guest services building and RV hookups.

If the proposed action is approved, there would be no private land development associated with the proposed action. Additional LPSRA development would take place entirely on National Forest System Lands.

Best Management Practices (BMPs) adopted by the IPNF and LNF would be implemented during construction of these facilities. Applicable BMPs for road building, timber harvest, slash burning, revegetation, and other construction projects are presented in the project file.

### ***Chair Lifts and Runs***

Additional services would include two new double chair lifts to the top of Runt Mountain. One chair lift, the Bitterroot Lift, would service the new runs on the north side of Runt Mountain. The other chair lift, the St. Regis Lift, would be installed on the south side of Runt Mountain. The existing chair on the east side of Runt Mountain would remain at the ski area. Both new chair lifts would be “top driven”, where power is supplied from existing electric lines. Both chairs would have 100% backup diesel or gasoline auxiliary power. Chair lifts would be purchased used from other ski areas that are replacing theirs with high-capacity lifts. These “recycled” ski lifts would offer resource conservation and cost savings to the ski area and ski visitors. Used chair lifts cost less than new lifts, allowing the proposed action to occur at a lower cost than using new lifts.

Chair lift towers would be transported to each tower site using logging equipment (forwarders, helicopters, cable machines, tractors or skidders). Some tower foundations close to roads may be poured using concrete pump trucks. Other concrete foundations would be poured using logging equipment. Roads would not be constructed to each tower location.

The action alternatives would add new advanced-intermediate and expert trails to the north and south sides of Runt Mountain. Slopes with a northern exposure would provide better quality snow than south- and west-facing slopes, especially in poor snow years. However, skiers often prefer sunny southern slopes when icy snow conditions are improved by solar radiation.

The action alternatives would include filling, grading, and revegetating one acre of the beginner rope tow area to a 7 percent slope. The fill would eliminate a concave area and side slope. In addition, one acre in the middle section of the Golden Eagle ski run (formerly Peretti's Highway) would also be regraded and revegetated to eliminate side slopes.

Soil disturbance would be minimized during culvert installation and stump breakdown or removal on ski runs. Best Management Practices would be followed to minimize disturbance next to streams (see also INFISH discussion below). Additional mitigation measures and site-specific BMP application are discussed below under Mitigation and Monitoring and under the individual resources in **Chapter 4**.

Existing culverts on the north side of Runt Mountain would be extended where necessary for each action alternative where proposed ski trails and lifts intersect the old railroad grade (FS 3026). The location of the culverts and the culvert length would vary, depending upon the alternative (**Table 2-1**).

New ski runs would be less than 300 feet wide under Alternative B and less than 200 feet wide under Alternatives C and D. The center of the runs or edges of tree islands would be less than 150 feet away from the edge of ski runs. Ski runs would be maintained below this width for wildlife mitigation, providing security habitat for big game and Canada lynx.

### ***Timber Harvest***

A final logging plan will be completed and approved by the Forest Service prior to timber harvest on ski runs, trails and temporary roads. This plan will include provisions for harvest methods and equipment, harvest season, cutting specifications, fuel reduction, erosion control, nutrient management, pest control and other factors. Timber harvest specifications would be written to cut trees as low to the ground as possible to eliminate the hazard of stumps. Where stumps are not cut low enough, they would be treated either by re-cutting, by breaking down with harvest equipment or by removal by harvest equipment. Stump removal would occur only at small, disconnected sites. Under current market conditions, commercial timber includes trees at least 6 inches or larger in diameter for lodgepole pine and 7 inches or larger in diameter for other species. If possible, trees 3- to 6-inch diameter would be sold as well, perhaps to a fencing purchaser.

Wood waste would be chipped and used for erosion control, if needed on steeper slopes. In other areas, wood waste would be piled and burned according to Forest Service standards and air quality controls (see **Chapter 4 – Air Quality**).

Timber harvest would be conducted using wheeled and tracked equipment (including forwarders) on the gentler slopes and cable machines or helicopters on the steeper slopes. If less impact would occur or if it would be more economical, timber may be piled and burned on some sites that present special challenges for timber harvest and removal.

**Table 2-1: Total Area Affected by the Action Alternatives**

<b>Proposed Ski Area Modifications</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>
Additional parking	1 acre	1 acre	1 acre
Temporary roads for timber harvest and lift installation (reclaimed after timber harvest)	1.7 miles	1.2 miles	1.2 miles
Road upgrade for timber harvest followed by reconstruction into trail for hiking, biking and cross-country skiing (Primitive Road A)	2100 feet	2100 feet	2100 feet
Water Quality Mitigation - road elimination and rehab into ski run with appropriate erosion controls and revegetation (Primitive Road B)	3500 feet	3500 feet	3500 feet
Road upgrade for timber harvest including improved erosion control features (Forest Road 18591).	1300 feet	1300 feet	1300 feet
Ski runs and lifts on south side	90 acres	57 acres	57 acres
Ski runs and lifts on north side	64 acres	33 acres	30 acres
Total new ski runs and lifts	154 acres	90 acres	87 acres
Chair lifts	Two lifts totaling 7105 feet	Two lifts totaling 5777 feet	Two lifts totaling 5766 feet
Regrading and revegetation on existing runs	2 acres	2 acres	2 acres
Regrading and revegetation on new runs	6.8 acres	4.4 acres	2.7 acres
Trail Construction - north end of Snowmobile Re-route #1	0	3600 to 5260 feet (depending on route chosen)	0
Buildings	19,600 square feet	19,600 square feet	19,600 square feet
Septic and drainfield plus replacement area	0.1 acre	0.1 acre	0.1 acre
Snowmobile Reroute #2 length of trail cleared around south lift terminal (no excavation required)	1015 feet	1015 feet	1015 feet
Area of affected wetland (affect is brush cutting; no fill or excavation)	8 acres	0.7 acre	0.7 acre
Electrical distribution lines	4300 feet	4300 feet	4300 feet
Number of proposed permanent culverts	0	2	1
Number of temporary culverts	5	3	3
Estimated Length of permanent culvert extensions	100 feet	60 feet	60 feet
Permit area	594 acres	455 acres	444 acres
<b>Tree Removal</b>			
Removal for parking	0	0	0
Removal for temporary roads on south side	1.1 acres	0.8 acres	0.8 acres
Removal for temporary roads on north side	2.9 acres	1.6 acres	1.6 acres
Removal for Snowmobile Reroute #1	0	4.2 to 5.5 acres (depending on route chosen)	0
Removal for Snowmobile Reroute #2	0.2 acre	0.2 acre	0.2 acre
Removal for runs and lifts on south side	81.1 acres	54.1 acres	54.1 acres
Removal for runs and lifts on north side	59.5 acres	30.5 acres	28.5 acres
Total required tree removal – south side	82.4 acres	55.1 Acres	55.1 acres
Total required tree removal – north side	62.4 acres	36.3 to 37.6 Acres	30.1 acres
Total required tree removal	144.8 acres	91.4 to 92.7 Acres (depending on snowmobile re-route chosen)	85.2 acres

### ***Buildings at the Base Area***

The action alternatives would remodel or add several buildings to the existing base area. The proposed changes or additions to the base area buildings are discussed below and shown in **Figure 2-4**.

### **Lodge**

The existing lodge is a two-story wood-frame building placed on a concrete foundation. The original building was constructed in 1941 and an addition was constructed in 1962. The restaurant and bar on the upper floor has seating for a total of 148 people. In 1992, a 1220-foot deck with seating for 100 people was added to the rear of the lodge. The 460-square foot remodeled basement has seating for 20 more people, along with the men's and women's

restrooms. Also located in the basement is a 690-square foot area with a utility room, ski instructor's lounge, and dining area that seats 88 people.

The action alternatives would expand the existing lodge by 4000 square feet. The added square footage allows for a new "scramble area" food service, kitchen, receiving and storage, additional seating and restroom facilities, retail space, ticket windows, and mechanical area. The lounge would be expanded and set apart from the main traffic flow. The lower level seating area would function as a mountain bike rental shop in the summer months.

### **Guest Services Building**

Each of the action alternatives would include a 14,500 square foot guest services building. Key elements of the building would be meeting rooms, an interpretive center, a child care area, caretakers quarters, and overnight lodging. Electrical services now located in an electrical bunker would be moved to the basement of this building. The guest services building would contain 8 motel-like rooms for overnight lodging. The upstairs of the guest services building would be used for meeting rooms and group functions with sliding partitions for different configurations. No overnight services are currently offered at the ski area in the winter. RVs are allowed to park at the ski area parking lot overnight during the summer.

### **Rental/Retail Shop**

The existing rental/retail shop is located east of the lodge. The shop is connected to the lodge by a wooden deck. The basement of the shop is used for rental distribution, a workshop, and a storage area. The building was constructed in 1982. The rental shop would be enlarged by 1100 square feet under the action alternatives. The shop expansion would allow for anticipated rental shop and ski school space requirements.

### **Maintenance Building**

The maintenance, or packer building, is a 1900-square foot maintenance facility with three garages for packer machines. The action alternatives would add 960 square feet to the second floor of the maintenance building. This would provide an employee locker room and additional First Aid/Ski Patrol space.

### **Other Structures**

Other structures at LPSRA include an A-frame building, electrical bunker, and flammable materials storage building. The 224-square foot A-frame is a portable building used for ticket sales and booking reservations for the ski school. This building is currently located west of the lodge, but under the action alternatives, it would be moved to the top of the mountain and used as a ski patrol shed. The 100-square foot electrical bunker is a concrete building located west of the A-frame. The electrical bunker would be removed under the action alternatives and electrical services would be centered in the Guest Services Building. The 80-square foot flammable materials storage building located east of the maintenance building would not be changed under the action alternatives.

### **Roads and Trails**

Existing roads and trails near the ski area are shown in **Figure 1-2**. Forest Service system roads have designated numbers (e.g. FS 3026), whereas existing non-system primitive roads

and trails have been informally named for this document (Primitive Roads A and B and Primitive Trail A).

Approximately 1.2 to 1.7 miles (depending upon alternative) of temporary primitive roads would be added between ski runs for tree removal and chair lift construction (**Figures 2-1, 2-2, and 2-3**). The length and width of temporary roads may be reduced through the use of forwarders or other specialized logging equipment. Under each action alternative, temporary culverts would be installed at swale crossings to pass ephemeral surface flow should any occur. After timber harvest and lift installation, temporary roads would be returned to the original contour and revegetated.

Each action alternative would mitigate the existing drainage and erosion problems on Primitive Roads A and B, Primitive Trail A, and Forest Road 18591. Primitive Road A is an existing 4-wheel drive road that crosses the large wetland on the south side of Runt Mountain outside the current permit area. Water draining from the wetland area has been captured by the road and has caused gully erosion up to 12 inches deep. Primitive Road A would be used to move harvested timber to loading areas during timber removal. Forwarders or skidders would be used for this operation but no logging trucks are anticipated due to the amount of disturbance that would be required to improve the road for truck use. Seasonal use restrictions would be imposed on Primitive Road A to prevent damage during timber harvest operations. Water bars would be installed to keep all surface water contained within the wetland area and prevent additional roadway erosion (see Mitigation and Monitoring Measures below). Following tree removal, Primitive Road A would be re-contoured and reduced in width to accommodate a trail for foot traffic, mountain biking and cross-country skiing. All exposed soil would be re-seeded and trees allowed to regrow beyond the immediate trail surface.

Forest Road 18591 would also be regraded to facilitate tree removal and transport from adjacent ski runs. Regrading would include installation of water bars to reduce current erosion. This road would remain open to all current summer uses. Snowmobiles and cross-country skiers would be routed around a 1200-foot long section of this road during the winter to avoid conflicts with ski area users.

Primitive Trail A and Primitive Road B are currently used for hiking and mountain biking in summer and for limited cross-country skiing in winter. An occasional 4-wheel drive or all-terrain vehicle (ATV)<sup>1</sup> uses Primitive Road B in the summer. Both trails currently have eroding sections which discharge to vegetated areas and not to streams. These erosion problems would be mitigated under each action alternative by installing water bars on each trail.

Portions of Primitive Road B would be reconstructed into ski runs under each action alternative. Reconstruction of Primitive Road B would be accomplished in a manner that eliminates past roadway erosion problems. This requires final grading to direct runoff into vegetated areas and revegetation of the formerly bare road surface. Those portions not reconstructed into ski runs would be rehabilitated and graded to eliminate erosion problems. The final number and location of water bars needed on Primitive Roads A and B will be determined by forest personnel during site visits coincident with construction and final contouring.

All roads and primitive trails in **Figure 1-2** that do not have a designated FS number were closed near Lookout Pass in 2001 to wheeled motorized use, except for administrative purposes and Special Use Permits such as the Jeep Jamboree. The closure was enacted

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<sup>1</sup> ATV in this document includes motorcycles, 3-wheelers, and 4-wheelers.



under a Forest Service action separate from the proposed ski area expansion. Forest Road 18591 and all other Forest Service (FS) system roads shown in **Figure 1-2** will remain open to wheeled motorized use. No inventoried roadless areas would be affected by the action alternatives. The nearest roadless areas are discussed in **Chapter 3 – Roadless Areas**.

### **Groomed Snowmobile Trails**

One alternative trail (Snowmobile Reroute #2) would be groomed for snowmobile and cross-country ski use as part of Alternatives B, C and D. A separate alternative trail, Snowmobile Reroute #1, would be groomed across St. Regis Pass for Alternative C. Construction of the alternative snowmobile trails would be the responsibility of LPSRA. Grooming of the trails would continue by the applicable Idaho and Montana state associations and would not be completed by LPSRA.

Snowmobile Reroute #2 would be a groomed trail located on the south side of Runt Mountain below the proposed St. Regis Lift and associated ski runs. The alternative trail would route snowmobile and cross-country ski users around the base of the lift. Skiers and snowmobiles share FS 18591, which is not groomed, but used to access the St. Regis Basin from FS 4208. To prevent user conflicts, snowmobile and cross-country ski traffic would be routed for 1200 feet around the ski area below Forest Road 18591. Construction of this alternative snow route would involve tree removal and signing, but no earth disturbance.

Existing parking facilities for snowmobiles at Lookout Pass would continue to be used under the action alternatives. Snowmobiles would travel from Lookout Pass to the St. Regis Basin or Taft Exit via the abandoned railroad grade on the east and south sides of Runt Mountain (FS 4208).

Signs and snow fences would be used to direct snowmobile traffic onto alternative routes and away from trails designated for cross-country skiing only. Primitive Roads A and B, and Primitive Trail A would be closed to snowmobile use. The costs for signs directing snowmobiles and/or cross-country skiers to alternative trails would be covered by the applicant.

The entire railroad grade (FS 4208 and FS 3026) would remain open to motor vehicle use during the summer and alternative routes would not be required. Reroute #1 would be closed to wheeled motorized use under a FS action separate from the proposed ski area expansion. After upgrade of the rerouted trails for snowmobile groomer access, approved barriers would be installed on each end of the snowmobile trails during the summer to prevent wheeled motorized use. The LPSRA will be responsible for installing and maintaining these approved barriers.

### **Parking**

The existing parking lot covers about 1.7 acres with asphalt and provides enough space for 260 cars. A separate parking area near the Interstate 90 exit is plowed by the ski area for snowmobile parking. No changes are proposed for the existing snowmobile parking area.

The action alternatives would add 1.0 acre of new parking, an area large enough to park 120 vehicles and several buses. The new parking lot would be constructed east of the existing parking lot. The parking area would be graded to near level and covered with gravel or crushed rock to minimize erosion. Drainage from the parking lot and building expansion area would be routed to vegetated areas to prevent runoff from reaching streams. Drainage problems in the existing parking lot near the abandoned railroad grade would be corrected by re-contouring part of the parking lot and directing drainage to vegetated swales. Parking lot expansion and other

construction activities would require an NPDES stormwater discharge plan and permit administered by the Montana and Idaho Departments of Environmental Quality. No paved areas are proposed as part of the expansion plan. A stairway would be constructed to connect the proposed and existing parking lots. Parking lot snow removal and storage would be planned to provide for vehicle and snowmobile ingress and egress.

### **Water Supply**

The existing water system would meet the needs of facilities proposed for the ski area. Drinking and fire suppression water is supplied from a spring across Interstate 90 near the Montana/Idaho border. The spring water is piped under Interstate 90 to the ski area. Drinking water is stored in a 10,000-gallon tank and water for fire suppression is stored in a 25,000-gallon tank. The water right for the spring is for 5.83 gallons per minute, or 8,395 gallons per day. Current use at the ski area during the ski season has been metered and is approximately 1,500 gallons per day (about 5 gallons per person, per day).

Estimates of future water consumption (**Table 2-2**) were based on guidelines for public water supply systems provided by the Environmental Protection Agency (EPA, 1991). The estimates show that in 8 years the ski area is projected to use an average of 4224 gallons per day during the winter. Peak use during the winter, when skier visits exceed 500 per day, is expected to be about 5260 gallons per day. Summer use is approximately 370 gallons per day. Summer use in 8 years is expected to be about 4782 gallons per day.

### **Sewer System**

The existing sewer system consists of a septic tank buried in front of the northeast entrance to the lodge, a 500-foot buried septic line, and a 1250 square-foot drain field located at the north end of the existing parking lot. The existing sewer capacity is rated at 900 skiers per day. The proposed buildings and projected increase in use at the facility would require enlarging the drain field by about 4,356 square feet. The drain field would be enlarged in an area adjacent and north of the existing drain field according to the requirements of Shoshone County and the State of Idaho (**Figure 2-4**).

**Table 2-2: Estimated Water System Requirements**

Water Use Per Day	Number per day	Total Water Consumption per person/per day	Total Gallons per day
<b>Winter Use</b>			
Existing skiers and other visitors	300	7 gallons	2,100
Additional Skiers in 8 years	52	7 gallons	364
Overnight units, per bed (no kitchen)	8	80 gallons	640
Visitor Center and Conference Facility	160	7 gallons	1120
Total Winter Use in 8 years			<b>4224</b>
<b>Summer Use</b>			
Existing visitors for bicycle concession	73	7 gallons	511
Additional visitors for bicycle concession in 8 years	73	7 gallons	511
Overnight units, per bed (no kitchen)	8	80 gallons	640
Visitor Center and Conference Facility	160	7 gallons	1120
RV Units, per 2-person trailer (with water and sewer)	20	100 gallons	2000
Total Summer Use in 8 years			<b>4782</b>

### **Energy Supply**

Overhead power feed to LPSRA currently provides 2,400 volts. Step down transformers would be replaced during construction of the proposed action, increasing the power feed to 13,000 volts (Phil Edholm, 5/30/00). This amount of power is more than the anticipated needs of the proposed action. Approximately 3,500 ft of additional buried distribution lines would be installed to provide power to the proposed lifts. The base area would require approximately 800 feet of new buried electrical lines.

One 1000-gallon aboveground tank (AST) for diesel fuel is located adjacent and east of the maintenance building on the south side of the base area. This bulk fuel storage area for equipment fueling would remain at the existing location. The existing AST would be replaced with a new aboveground tank at the current tank storage location. The tank would be a "Convault" double walled, split tank (or similar) capable of storing approximately 2,000 gallons of diesel and 500 gallons of gas. Dispensing equipment and a catchment basin would be installed with the tank. The increase in fuel storage would be needed for additional grooming and snow removal equipment to maintain snow quality and plow the parking lots. The double-walled tank and catchment basin would upgrade the tank to meet current state and federal regulations and minimize risk of spillage and groundwater contamination.

### ***Construction, Employment, and Safety***

As stated above, construction of lifts, runs, and other facilities would be spread over about 4 years. Contracts would be let to local loggers for tree removal associated with new ski trails and lifts. The ski area would employ an architect and building contractor for the lodge expansion. Lifts would be constructed by the owner, Lookout Associates LLC. Lift installation would require at least 4 additional LPSRA employees through the construction season, plus separate contractors for concrete and soils engineering associated with the footing sites.

Employment at the ski area is described in **Table 2-3**. Considering the length of the ski and summer seasons, and assuming that part-time employees would work on average 20 hours per week, the expanded facility would increase its employment by the equivalent of approximately 8.7 full-time year-round employees. Not included in this estimate are the employees related to work contracted by the ski area discussed above. Additional lift and base area construction contracted by the ski area would further increase full-time and seasonal positions. Workers and contractors would be from the local region whenever possible.

Worker health and safety and compliance with State and Federal occupational laws would be a priority during and after construction. USDA non-discrimination practices required for Forest Service Special Use Permits are described on the introduction page to this document.

**Table 2-3: *Employment at LPSRA (excluding construction workers)***

Employment Type	Current Employment	Additional Employees for Proposed Action	Total After Proposed Action
Full-time Year-Round	7	4	11
Full-time during Ski Season Only	20	5	25
Full-time during Summer Only	3	1	4
Part-time during Ski Season Only	35	4	39
Part-time during the Summer Only	5	3	8
Total	70	17	87

Source: Phil Edholm, pers. comm., 7/30/00.

### **Skier Safety and Avalanche Hazard**

The proposed action was designed to maximize skier safety by eliminating crowding at the base of runs and reducing lift lines. Skiers would be spread over a larger area and lift lines would be minimized. Safe operating conditions are compromised when skiers of different abilities are funneled together at the base of one lift. This condition is worsened by long lift lines, which eliminate options for safe stopping distance and avoidance maneuvers. The additional building capacity would allow safer operating conditions regarding escape routes and loading to the structure.

LPSRA has been classified as a Class C avalanche site, which means there is a low probability of avalanche hazard (LRI, 1996). No known avalanches have occurred within the ski area boundary or the proposed ski area boundary. Known avalanche areas in the St. Regis Basin are west of the expansion area. Although there has been no indication of any avalanche activity on the north side of Runt Mountain, some of the proposed ski trails on the Idaho side may need hazard evaluation at times. Wind loading on the north side appears minimal, but the new openings on the slope would be monitored in accordance with the winter operating plan to ensure safe operating conditions (Phil Edholm, pers. comm., 8/23/00).

### ***Access for Skiers with Disabilities***

Ski areas on Federal land administered by the Forest Service must comply with state, local, and Federal regulations regarding accessibility for skiers with disabilities. The buildings and parking lot at LPSRA have several limitations regarding access. The proposed action is designed to correct access problems and comply with all state, local, and Federal requirements (American with Disabilities Act and Section 504 of the Rehabilitation Act of 1973). Project facilities will be designed using recommendations from the Forest Service "Accessibility Guidebook for Ski Areas on Public Lands" (USDA, 2000b).

## **2.5.6 Mitigation**

After analyzing the potential effects of proposed activities, specific "mitigation" measures were identified to reduce impacts to natural resources (these are measures taken to reduce the anticipated effects of a specific action). The following mitigation measures are an integral facet of all action alternatives and have been identified as necessary to reduce environmental effects to natural resources. These measures will be incorporated into the project design, timber sale contract, and other contracts and project plans.

Mitigation proposed for this project comes from four major sources:

1. The "Sustainable Slopes" environmental charter of the National Ski Area Association.
2. Inland Native Fish Strategy (INFISH).
3. Best Management Practices (BMPs).
4. Lynx Conservation Assessment and Strategy.

### ***Sustainable Slopes***

In all aspects of the proposed action, Lookout Associates, LLC has committed to implement the principles of the National Ski Area Association "Sustainable Slopes" environmental charter for ski areas. The charter outlines voluntary environmental principles for ski area planning, operations, and public outreach. Principles are outlined in the charter for planning, design, construction, water resources, energy conservation and use, waste management, fish and wildlife protection, forest and vegetative management, wetland and riparian areas, air quality,

visual quality, transportation, education, and outreach. Copies of the complete charter are available for review in the project file or online at [www.nsaa.org](http://www.nsaa.org).

### ***Inland Native Fish Strategy (INFISH)***

On July 28, 1995, the Regional Foresters in Regions 1, 4, and 6 signed the Inland Native Fish Strategy (INFISH) Environmental Assessment. This strategy provides interim direction to protect habitat and populations of native fish in the portions of the Upper Columbia River Basin outside the range of anadromous fish. The Idaho Panhandle National Forest and Lolo National Forest occur within the geographic area covered by this strategy. Riparian Management Objectives, Riparian Habitat Conservation Areas, standards, and guidelines, and monitoring requirements outlined in this strategy were amended to the current Forest Plans.

INFISH identified habitats and components of habitat important to maintain and improve inland native fish populations. Riparian Habitat Conservation Areas (RHCAs) are portions of watersheds where riparian-dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines. RHCAs include traditional riparian corridors, wetlands, intermittent streams, and other areas that help maintain the integrity of aquatic ecosystems by: 1) influencing the delivery of coarse sediment, organic matter, and woody debris to streams, 2) providing root strength for channel stability, 3) shading the stream, and 4) protecting water quality.

INFISH standards and guidelines would be applied for each of the action alternatives. INFISH standards and guidelines most applicable to the proposed action are listed below. Copies of the complete standards and guidelines are available for review in the project file.

- **RM-1:** Design, construct, and operate recreation facilities, including trails and dispersed sites, in a manner that does not retard or prevent attainment of the Riparian Management Objectives and avoids adverse effects on inland native fish. Complete watershed analysis prior to construction of new recreation facilities in Riparian Habitat Conservation Areas within priority watersheds. For existing recreation facilities inside Riparian Habitat Conservation Areas, assure that the facilities or use of the facilities would not prevent attainment of Riparian Management Objectives or adversely affect inland native fish. Relocate or close recreation facilities where Riparian Management Objectives cannot be met or adverse effects on inland native fish cannot be avoided.
- **RM-2:** Adjust dispersed and developed recreation practices that retard or prevent attainment of Riparian Management Objectives or adversely affect inland native fish. Where adjustment measures such as education, use limitations, traffic control devices, increased maintenance, relocation of facilities, and/or specific site closures are not effective in meeting Riparian Management Objectives and avoiding adverse effects on inland native fish, eliminate the practice or occupancy.
- **RM-3:** Address attainment of Riparian Management Objectives and potential effect on inland native fish in Wild and Scenic Rivers, Wilderness, and other Recreation Management plans.
- **RF-4:** Construct new, and improve existing, culverts, bridges, and other stream crossings to accommodate a 100-year flood, including associated bedload and debris, where those improvements would/pose a substantial risk to riparian conditions.

### ***Best Management Practices (BMPs)***

Best management practices have been developed for both the Idaho Panhandle and Lolo National Forests to reduce effects on critical resources, especially aquatic resources, soil resources and fisheries resources. The effectiveness of these BMPs have been documented during field reviews over the past two decades. Copies of complete BMPs for the two forests and documents evaluating their effectiveness are available for review in the project file.

Voluntary Best Management Practices have been developed for timber harvest in Montana. The three sources of BMPs are similar and are grouped together. Independent evaluations of all three sets of BMPs have been conducted and they have been found to be effective at their target impacts (Montana DNRC 1998, USDA Lolo National Forest 2002, Idaho Department of Environmental Quality 2001). Prior to construction, IPNF would require that BMPs be incorporated into construction and timber harvest contracts.

### ***Lynx Conservation Assessment and Strategy***

Conservation measures for preventing impacts to Lynx have been developed for natural resource projects including recreation area developments and are outlined in the “*Lynx Conservation Assessment and Strategy*” (Ruediger and others 2000). These measures were developed based on existing information about the species biology and perceived habitat needs. Since they are relatively new, they have not been subjected to rigorous evaluation for effectiveness.

### ***Additional Mitigation and Oversight***

Design, construction, and installation of the lifts must be approved and inspected by the Region 1 office of the Forest Service. Building plans for all new construction and remodels will be reviewed by the Forest Service. Building and septic permits would be obtained from Shoshone and Mineral Counties.

#### **A. Mitigation to Reduce Effects to Aquatic Resources**

All applicable BMPs, INFISH standards and Sustainable Slopes recommendations would be implemented at LPSRA to reduce effects to aquatic resources. Since the three sources of BMPs are similar, they are not identified individually to reduce duplication. BMPs to reduce effects to aquatic resources are:

Slope Limitations for Tractor Operations, BMP 13.02  
Re-vegetation of Surface Disturbed Areas, BMP 13.04  
Timber Harvest Unit Design, BMP 14.02  
Log Landing Location and Design, BMP 14.10  
Using Sale Area Maps to Designate Soil and Water Protection Needs, BMP 14.03  
Limiting the Operating Period of Timber Sale Activities, BMP 14.04  
Timing Construction Activities, BMP 15.04  
Tractor Skidding Design, BMP 14.08  
Erosion Prevention Control Measures during Timber Sale Operations, BMP 14.12  
Erosion Control on Skid Trails, BMP 14.15  
Stream Channel Protection, BMP 14.17  
Erosion Control Structure Maintenance, BMP 14.18  
On-site Large Woody Residue and Soil Litter Retention, BMP 14.24  
General Guidelines for the Location and Design of Roads and Trails, BMP 15.02  
Mitigation Surface Erosion and Stabilizing Slopes, BMP 15.06

Control Permanent Road Drainage, BMP 15.07  
Timely Erosion Control Measures on Incomplete Rds & Stream X-ing Projects, BMP 15.09  
Control of Road Construction Excavation and Sidecast Material, BMP 15.10  
Stream Crossings on Temporary Roads, BMP 15.15  
Bridge and Culvert Installation, BMP 15.16  
Obliteration of Temporary Roads, BMP 15.25

## **B. Mitigation to Reduce Effects to Soil and Aquatic Resources**

All applicable BMPs, INFISH standards and Sustainable Slopes recommendations would be implemented at LPSRA to reduce effects to soil resources. BMPs to reduce effects to aquatic resources are:

Slope Limitations for Tractor Operations, BMP 13.02  
Re-vegetation of Surface Disturbed Areas, BMP 13.04  
Timber Harvest Unit Design, BMP 14.02  
Log Landing Location and Design, BMP 14.10  
Using Sale Area Maps to Designate Soil and Water Protection Needs, BMP 14.03  
Limiting the Operating Period of Timber Sale Activities, BMP 14.04  
Timing Construction Activities, BMP 15.04  
Tractor Skidding Design, BMP 14.08  
Erosion Prevention Control Measures during Timber Sale Operations, BMP 14.12  
Erosion Control on Skid Trails, BMP 14.15  
Erosion Control Structure Maintenance, BMP 14.18  
On-site Large Woody Residue and Soil Litter Retention, BMP 14.24  
General Guidelines for the Location and Design of Roads and Trails, BMP 15.02  
Mitigation Surface Erosion and Stabilizing Slopes, BMP 15.06  
Control Permanent Road Drainage, BMP 15.07  
Timely Erosion Control Measures on Incomplete Rds & Stream X-ing Projects, BMP 15.09  
Control of Road Construction Excavation and Sidecast Material, BMP 15.10  
Stream Crossings on Temporary Roads, BMP 15.15  
Bridge and Culvert Installation, BMP 15.16  
Obliteration of Temporary Roads, BMP 15.25

Specific mitigation practices for individual project components will include:

### **ALL DISTURBED SITES**

- Minimize the area of exposed soil to that necessary to complete construction.
- Re-seed all soil exposed during timber harvest, lift construction, regrading, or other activities using seed mixes approved by the Forest Service
- Control noxious weeds as needed according to specifications of the Forest Plans.
- Install silt fences, filter fabric, water bars or similar controls to prevent sediment from reaching stream channels at all culvert locations, road and trail reconstruction sites and other locations where soil is disturbed.
- Schedule culvert installations, re-grading and other soil disturbances outside the spring runoff period.
- Preserve sediment buffer areas between streams and all soil disturbances including road construction.
- Maintain vegetation buffer areas between all disturbances and all stream channels sufficient to prevent sediment from reaching streams.
- Do not remove stumps from sites within 500 feet of streams; instead cut stumps to ground level.

### RE-GRADING SITES

- Salvage topsoil and existing understory vegetation from areas to be re-graded. Replace this topsoil and plant remains after regrading to provide a native plant seed and rhizome source. Re-seed graded areas as discussed above. Salvaged soil would also provide a rough surface with significant organic matter content that would encourage infiltration and reduce runoff.
- Install temporary water bars at a minimum interval of 100 feet on all re-graded sites. Water bars would discharge to vegetated sites such that sediment would not enter streams. These water bars may be removed following successful revegetation.

### ERODING ROAD AND TRAIL SECTIONS

- Install appropriate water bars during Primitive Road A upgrade for timber removal, then reconstruct the entire 2100 foot length into a narrower trail for cross-country skiing, hiking and mountain biking. Solve current erosion problem at wetland with appropriate final grading and water bars.
- Upgrade 1300 feet of Forest Road 18591 for timber removal including water bars to reduce existing erosion.
- Install water bars where needed to eliminate existing erosion problems. This would include approximately 4 water bars each on Primitive Trail A and Primitive Road B. Ensure water bars discharge to well-vegetated areas capable of filtering all sediment before it reaches any stream.

## C. Mitigation to Reduce Effects to Wildlife Resources

Conservation measures for preventing impacts to Lynx at developed recreation sites have been used to develop and evaluate impacts of the alternatives on Lynx as outlined in the "*Lynx Conservation Assessment and Strategy*" (Ruediger and others 2000). These measures will be reviewed during project implementation to ensure that all applicable measures are implemented.

## D. Mitigation to Reduce Effects to Air Resources

Provisions to ensure adequate smoke dispersal during slash disposal would be implemented. All burning would be conducted in compliance with the Smoke Management Plan of the Montana and Idaho State Air Shed Groups.

## 2.5.7 Monitoring

### A. Forest Plan Monitoring

The Forest Plan documents a system to monitor and evaluate Forest activities. Monitoring and evaluation each have distinctly different purposes and scope. In general, monitoring is designed to gather the data necessary for project evaluation. During evaluation of project effectiveness, data provided through the monitoring effort are analyzed and interpreted. This process will provide periodic data necessary to determine if implementation is within the bounds of the project design (Forest Plan, page IV-7). For activities in the LPSRA, all alternatives would comply with specific monitoring requirements identified by the Forest Plan (Forest Plan, Chapter IV; and Project Files, "Monitoring"). The length of time that monitoring is needed will be determined by the results and evaluation of what is being monitored. When it is certain that regulations and standards are being met, monitoring of a particular element will cease. If



monitoring evaluations show that regulations or standards are not being achieved at the desired level, management intervention will occur.

## B. Forest Corporate Monitoring

In December 1999, the Ecosystem Team for the Idaho Panhandle National Forests facilitated development of a Corporate Monitoring System. The emphasis is on monitoring our progress in restoring the ecosystems of the Idaho Panhandle and in being more consistent in the way we analyze effects to the ecosystems. The monitoring is tied closely to findings of the Interior Columbia Basin and Geographic Assessment. The data that will be tracked for long-term monitoring is provided in the table below. The LPSRA project would be included in the Corporate Monitoring System.

**Table 2-4. Long-term Monitoring of Ecosystem Core Data**

Ecosystem Condition Core Data Monitoring Element	Core Data to be Monitored
Hydrologic integrity	Road density
Wildlife security and public access	Open road density
Water yield	Hydrologic openings (equivalent clearcut acres)
Changes in forest structure outside the historic range of variability	Forest structure by size and age-class groups
Changes in species composition outside the historic range of variability	Forest composition by forest cover type group
Habitat loss and species decline	TES dry and moist/cold site habitat restoration
Changes in landscape pattern	Landscape pattern indicators (mean patch size and variability, edge density, etc.)

## C. Monitoring Specific to This Project

In addition to the above, the following monitoring activities would occur specific to this project:

Vegetation: All regeneration and revegetation activities would be monitored for success in achieving adequate coverage to prevent soil erosion and establish adequate tree cover where desired. Special focus will be placed on buffer areas adjacent to aquatic resources, graded areas, culverts and temporary roads.

Aquatic Resources: The objective of monitoring aquatic resources is to determine if land management activities are meeting the resource protection and improvement objectives. In addition to the core data monitoring identified above, monitoring would occur in relation to implementation and effectiveness of Best Management Practices and watershed restoration activities. Monitoring of Best Management Practices has determined that recent projects on the Idaho Panhandle National Forests have been implemented as designed and have achieved the desired objectives (USDA Forest Service, 2000, Idaho Panhandle National Forests Monitoring - 1999, p. 34-41). Special focus will be placed on buffer areas adjacent to aquatic resources, temporary culvert sites

Wildlife Resources: Lynx sightings will continue to be recorded. If it is determined that there is a pattern of lynx use (based on lynx sightings in the area), current lynx analysis unit boundaries may require modification in cooperation with the U.S. Fish and Wildlife Service and Idaho Fish and Game. Other wildlife observations will continue and will be incorporated into future management plans and decisions if appropriate.

## 2.6 COMPARISON OF ALTERNATIVES

**Table 2-5** compares the effects of the alternatives on resources, emphasizing the issues raised in the public comment period on the DEIS. Direct, indirect, and cumulative effects are shown for each issue below. These issues and other issues and effects are discussed in **Chapter 4**, Environmental Consequences.

**Table 2-5: Comparison of Alternatives**

Issue	Alternative A - No Action	Alternative B	Alternative C	Alternative D
<b>Water Resources</b>				
Water Quality- potential sediment increase	No change	Potential for a small, temporary increase in sediment. Potential is higher than Alternatives C, D, E (more disturbance for timber removal, temporary roads and regrading).	Potential for a small, temporary increase in sediment. Potential is lower than Alternative B (less disturbance for timber removal, temporary roads and regrading).	Potential for a small, temporary increase in sediment. Potential is lower than Alternatives B and C (less disturbance for timber removal, temporary roads and regrading).
Water Quality – potential short-term sediment increase at temporary and permanent culvert installations	No change	5 temporary and no permanent culverts	3 temporary and 2 permanent culverts	3 temporary and 1 permanent culverts
Water Quality – potential sediment increase at short-term erosion at existing culvert extensions	No change	100 feet of culvert extension	60 feet of culvert extension	60 feet of culvert extension
Water Quality – potential sediment increase at short-term erosion at regrading sites for existing and new runs	No change	8.8 acres of regrading	6.4 acres of regrading	4.7 acres of regrading
Water Quality Mitigation - road upgrade for timber harvest followed by reconstruction into trail for hiking, biking and cross-country skiing (Primitive Road A)	No change	2100 feet	2100 feet	2100 feet
Water Quality Mitigation - road elimination and re-hab into ski run with appropriate erosion controls and revegetation (Primitive Road B)	No change	3500 feet	3500 feet	3500 feet
Water Quality Mitigation - road upgrade for timber harvest including improved erosion control features (Forest Road 18591).	No change	1300 feet	1300 feet	1300 feet
Effect on Springs	No change	100-foot culvert extension below Bitterroot Spring	Possible trail construction above Bitterroot Springs (Snowmobile Reroute #1)	No change
Water Yield	No change	Potential for a very small increase (too small to model) (<1%)	Potential for a very small increase (too small to model) (<1%)	Potential for a very small increase (too small to model) (<1%)

(table continued on next page)

**Table 2-5: Comparison of Alternatives, Continued...**

Issue	Alternative A - No Action	Alternative B	Alternative C	Alternative D
<b>Wildlife</b>				
Forested habitat converted to ski runs and other facilities	No change	145 acres	91 to 93 acres	85 acres
TES wildlife				
▪ Diurnal security habitat for lynx	▪ No change	▪ Loss of diurnal security habitat for lynx below Bitterroot Spring (<0.1 acre)	▪ Little potential to affect diurnal habitat	▪ Little potential to affect diurnal habitat
▪ Unsuitable foraging lynx habitat	▪ No change	▪ Unsuitable lynx habitat increased by 0.5% (MT) and 1.9% (ID)	▪ Unsuitable lynx habitat increased by 0.3% (MT) and 1.2% (ID)	▪ Unsuitable lynx habitat increased by 0.3% (MT) and 1.1% (ID)
▪ Feet of packed trail in area of direct effect	▪ No change (74,386 feet)	▪ 55,235 feet total (74% of Alternative A)	▪ Either 61,635 or 63,922 feet total (83-85% of Alternative A)	▪ 69,729 feet total (94% of Alternative A)
▪ Acres of ski runs in area of direct effect	▪ No change (127 acres)	▪ 154 additional acres (278 total acres, or 218% of Alternative A)	▪ 90 additional acres (212 total acres, or 167% of Alternative A)	▪ 87 additional acres (214 total acres, or 169% of Alternative A)
Wetland and riparian habitat				
▪ Acres of wetland loss	▪ No change	▪ Loss at culverts <0.1 acre	▪ Loss at culverts <0.1 acre	▪ Loss at culverts <0.1 acre
▪ Acres of wetland affected by ski runs	▪ No change	▪ 8 acres	▪ 0.7 acres	▪ 0.7 acres
▪ Acres of riparian area loss	▪ No change	▪ Loss at culverts <0.1 acre	▪ Loss at culverts <0.1 acre	▪ Loss at culverts <0.1 acre
<b>Vegetation</b>				
Tree removal	No change	145 acres removed	91 to 93 acres removed	85 acres removed
Estimated Length of permanent culvert extensions	No change	100 feet	60 feet	60 feet
Number of proposed culverts	No Change	5 temporary and no permanent culverts	3 temporary and 2 permanent culverts	3 temporary and 1 permanent culverts
Old Growth	No change (not present)	No change (not present)	No change (not present)	No change (not present)
Fuels and Fire Management				
▪ Fire Control	▪ No change	▪ No change to slight increase	▪ No change to slight increase	▪ No change to slight increase
▪ Fuel Loading	▪ Increase over time	▪ Decrease on ski runs, roads, parking area	▪ Decrease on ski runs, roads, parking area	▪ Decrease on ski runs, roads, parking area
TES Plants	No change	No change	No change	No change
Wetlands and Riparian Areas				
▪ Acres of wetland loss	▪ No change	▪ Loss at culverts <0.1 acre	▪ Loss at culverts <0.1 acre	▪ Loss at culverts <0.1 acre
▪ Acres of wetland affected by ski runs	▪ No change	▪ 8 acres	▪ 0.7 acres	▪ 0.7 acres
▪ Acres of riparian area loss	▪ No change	▪ Loss at culverts <0.1 acre	▪ Loss at culverts <0.1 acre	▪ Loss at culverts <0.1 acre
Noxious Weeds	No change	Potential slight increase	Potential slight increase	Potential slight increase
<b>Recreation</b>				
Available ski terrain	No change	154 acres of additional runs	90 acres of additional runs	87 acres of additional runs
Changes in primitive vs. developed recreation	No change	259 acres added to developed recreation for Special Use Permit area	120 acres added to developed recreation for Special Use Permit area	109 acres added to developed recreation for Special Use Permit area

(table continued on next page)

**Table 2-5: Comparison of Alternatives, Continued....**

Issue	Alternative A - No Action	Alternative B	Alternative C	Alternative D
<b>Recreation</b>				
Increased recreation	Increased crowding	<ul style="list-style-type: none"> <li>Positive economic effects</li> <li>Increase in dispersed recreation outside the ski area by those using lodging, lifts, and visitor center at Lookout Pass</li> <li>Increased dispersed recreation outside the ski area may increase avalanche encounters and user conflicts</li> <li>Potential use restrictions in the St. Regis Basin because of increased year-round recreation.</li> <li>Potential increases in visitation to LPSRA area over other family-oriented day-use ski areas in the region.</li> </ul>	<ul style="list-style-type: none"> <li>Positive economic effects</li> <li>Increase in dispersed recreation outside the ski area by those using lodging, lifts, and visitor center at Lookout Pass</li> <li>Increased dispersed recreation outside the ski area may increase avalanche encounters and user conflicts</li> <li>Snowmobile Reroute #1 over St. Regis Pass may encourage additional use of the St. Regis Basin and backcountry along the Montana/Idaho divide</li> <li>Potential use restrictions in the St. Regis Basin because of increased year-round recreation.</li> <li>Potential increases in visitation to LPSRA area over other family-oriented day-use ski areas in the region.</li> </ul>	<ul style="list-style-type: none"> <li>Positive economic effects</li> <li>Increase in dispersed recreation outside the ski area by those using lodging, lifts, and visitor center at Lookout Pass</li> <li>Increased dispersed recreation outside the ski area may increase avalanche encounters and user conflicts</li> <li>Potential use restrictions in the St. Regis Basin because of increased year-round recreation.</li> <li>Potential increases in visitation to LPSRA area over other family-oriented day-use ski areas in the region.</li> </ul>
Effects to groomed snowmobile trails shared with cross-country skiers	No change	<ul style="list-style-type: none"> <li>Groomed snowmobile trail on north side of Runt Mountain closed at permit boundary (no alternative route provided).</li> <li>Groomed snowmobile/cross-country trail on south side of Runt Mountain rerouted next to lift station (Reroute #2).</li> <li>More demand for parking at Lookout Pass by snowmobiles unable to traverse Montana/Idaho divide on groomed snowmobile trails</li> </ul>	<ul style="list-style-type: none"> <li>Groomed snowmobile trail on north side of Runt Mountain rerouted over St. Regis Pass, requiring trail construction (Reroute #1).</li> <li>Groomed snowmobile/cross-country trail on south side of Runt Mountain rerouted next to lift station (Reroute #2).</li> </ul>	<ul style="list-style-type: none"> <li>Groomed snowmobile trail on north side of Runt Mountain would remain unchanged.</li> <li>Groomed snowmobile/cross-country trail on south side of Runt Mountain rerouted next to lift station (Reroute #2).</li> </ul>
Effects to cross-country ski trails and shared use with snowmobiles	No change	<ul style="list-style-type: none"> <li>About 2800 feet of cross-country trail eliminated by ski runs on the west side of Runt Mountain (access for cross-country skiers retained)</li> <li>Primitive Roads A and B and Primitive Trail A closed to snowmobiles but open to cross-country skiers</li> </ul>	<ul style="list-style-type: none"> <li>About 700 feet of cross-country trail eliminated by ski runs on the west side of Runt Mountain (access for cross-country skiers retained)</li> <li>Primitive Roads A and B and Primitive Trail A closed to snowmobiles but open to cross-country skiers</li> </ul>	<ul style="list-style-type: none"> <li>About 700 feet of cross-country trail eliminated by ski runs on the west side of Runt Mountain (access for cross-country skiers retained)</li> <li>Primitive Roads A and B and Primitive Trail A closed to snowmobiles but open to cross-country skiers</li> </ul>

## 2.7 PERMITS REQUIRED

A Special Use Permit would be required to implement any of the action alternatives. This permit would authorize additional development, construction, and operation of ski area facilities on National Forest System lands. The Special Use Permit would be granted under the authority of the National Forest Ski Area Act of 1986 (16 USC 497b; FSM 2700-92-13). The Act authorizes the Forest Service to issue term ski area permits "for the use and occupancy of suitable nordic and alpine skiing operations and purposes" (Section 3(b)). The Act also states that a permit "shall encompass such acreage as the Forest Service determines sufficient and appropriate to accommodate the permittee's need for ski operations and appropriate ancillary facilities" (Section 3(b)). The Permit would be issued for a term of 20 years as provided for in the Act and 36 CFR 251.56.

To evaluate the action alternatives, the Forest Service must:

- Consider the proposal for expansion of the LPSRA to provide additional downhill skiing opportunities.
- Determine whether or not the proposal is consistent with the objectives and standards of the Idaho Panhandle and Lolo National Forest Plans.

In addition, the Forest Service and other Federal, State, and local agencies have jurisdiction over certain aspects of the action alternatives. **Table 2-6** provides a comprehensive listing of the agencies with jurisdiction over the action alternatives and identifies their respective permit/authorizing responsibilities.

**Table 2-6: Regulatory Responsibilities**

Authorizing Action	Regulatory Agency
Special Use Permit and Final Approval for All Project Components including Building Plans, Timber Harvest Plans, Vegetation Management Plans (including weed control), Final Ski Trail/Temp Road/Culvert Locations, BMP Installation.	USDA Idaho Panhandle National Forests (IPNF)
National Environmental Policy Act (NEPA)	USDA Idaho Panhandle and Lolo National Forests; U.S. Environmental Protection Agency
National Historic Preservation Act	USDA IPNF and LNF; Montana and Idaho State Historic Preservation Offices (SHPO)
Native American Graves Protection and Repatriation Act	USDA Idaho Panhandle National Forests (IPNF)
American Indian Religious Freedom Act	USDA Idaho Panhandle National Forests (IPNF)
Clean Water Act; NPDES Stormwater Discharge Permit	Montana and Idaho Departments of Environmental Quality (MDEQ; IDEQ) (authorized for compliance review by the U.S. Environmental Protection Agency)
Clean Water Act; 404 Permit for Disturbance to Wetlands and Stream Crossings	U.S. Army Corps of Engineers
310 Permit for Stream Disturbances	Mineral and Shoshone County Conservation Districts
Clean Air Act	Montana and Idaho Departments of Environmental Quality (MDEQ; IDEQ) (authorized for compliance review by the U.S. Environmental Protection Agency)
Threatened and Endangered Species Act	U.S. Fish and Wildlife Service
Water Rights Appropriation Permits	Montana Department of Natural Resources and Conservation (DNRC)
Drinking Water System Construction or Modification	Idaho DEQ
Sewer System Approvals	Shoshone County Sanitarian; Idaho Department of Environmental Quality (IDEQ)

## CHAPTER 3 THE AFFECTED ENVIRONMENT

### 3.1 INTRODUCTION

The purpose of **Chapter 3** is to describe the physical, biological, and human components of the environment that would be affected by the proposed expansion of Lookout Pass Ski and Recreation Area (LPSRA). The area of analysis and existing conditions for each affected resource are described in this chapter.

This section of the EIS document tiers to the Idaho Panhandle and Lolo National Forest Management Plans (IPNF, 1987a; LNF, 1986a), Forest Plan Final Environmental Impact Statements (IPNF, 1987b; LNF, 1986b), and Forest Plan Record of Decisions and amendments.

### 3.2 PHYSICAL ENVIRONMENT

#### 3.2.1 Geology

##### *Standards*

The IPNF Forest Plan (1987a) states as a goal to *“Provide opportunities for mineral exploration and development in compliance with laws and regulations commensurate with management areas goals”*. The Plan standards state that: *“In compliance with the mining laws and regulations, the IPNF will administer lands in cooperation with developers of the minerals, recognizing its value as a National Forest Resource. The Forest will cooperate with federal and state agencies in the administration of laws, rules, and regulations pertaining to explorations and mining consistent with protection and management of surface resources. Before recommendations are made on any lease application, additional NEPA site-specific analysis of environmental effects will be made”*.

The Management Areas affected by the action alternatives are shown in **Figure 1-4**. No management direction for geologic resources is provided in Management areas 1 and 17 of the IPNF Forest Plan. The LNF Forest Plan (1986a) states that mineral materials permits will not be issued for MA 8 (page III-24). Management Area 9 standards state that *“Mineral materials permits will not be issued except that continuance of existing permits may be allowed if an environmental analysis concludes that such use will not impair attainment of the management goals for the Management Area...”*.

In 1996, Section 701(j), title VII, Division I of the Omnibus Parks and Public Lands Management Act withdrew all National Forest lands within permitted ski area boundaries from mineral entry, subject to valid existing rights. Presently, the National Forest lands within the Lookout Pass Ski Area boundary are withdrawn from mineral entry.

##### *Area of Analysis*

The area of analysis for direct, indirect, and cumulative effects is the same as the permit area for the proposed action and occurs on the north and south sides of Runt Mountain (**Table 2-1** and **Figures 2-1, 2-2 and 2-3**). Geologic concerns focused on mineral potential and geologic hazards within the permit area since this is the area affected by the proposal. Geologic

information was gathered through field trips to the area, literature research, and correspondence with the Montana Bureau of Mines and Geology.

### ***Geologic History and Existing Conditions***

LPSRA is located in the northern Bitterroot Range in the Rocky Mountain physiographic province. Runt Mountain is composed of the Precambrian-age St. Regis Formation, a dark purple and dark green interlaminated sequence of argillite and siltite. The St. Regis Formation is part of the Belt Supergroup, a sequence of meta-sedimentary rocks underlying much of northeastern Idaho and western Montana. Drainages below the mountain are filled with Quaternary-age (Pleistocene) glacial till and outwash deposits.

The Precambrian Belt rocks in western Montana and northeastern Idaho were folded and thrust faulted in early Jurassic through Late Cretaceous time and thrust faulted and strike-slip faulted in Late Cretaceous to Early Tertiary time. The later strike-slip faulting formed the Lewis and Clark Zone (LCZ), a major structural feature that extends from Helena, Montana to Spokane Washington. Lookout Pass is located between the Osburn Fault and Placer Creek Fault of the LCZ (Harrison et al., 1986a). The Osburn and Placer Creek Faults are high-angle normal faults that extend over 20 miles along a northwest-southeast trend, sub-parallel to the crest of the Bitterroot Mountains. Neither of these faults has documented surface displacement younger than late Tertiary age (Pardee, 1950). Previous studies have considered these faults seismically inactive (DNRC 1979).

During Tertiary time most of the present mountain ranges and drainage systems were formed during erosion and normal faulting at the margins of some ranges. Mountains were further modified by Pleistocene glaciers and valleys were covered by glacial till and outwash. Modern streams and erosion reworked glacial deposits.

### ***Mineral Potential***

Although numerous small prospect pits and several large trenches are located on Runt Mountain, no economic mineralization has been discovered in the proposed permit area. Mineral potential maps (Harrison, et al., 1986b) indicate that the proposed expansion area has a moderate potential for metallic mineral resources. USDI Bureau of Land Management (BLM) records for Montana show that 66 unpatented mining claims were staked on the Lolo National Forest in the approximate area of the proposed action (Sections 31 and 32, T20N, R32W). The claims on the LNF were closed in the late 1980s and early 1990s. BLM records for Idaho show that 95 unpatented mining claims were staked on the Idaho Panhandle National Forest in the approximate area of the proposed action (Sections 32 and 33, T48N, R6E and Sections 4 and 5, T47N, R6E). All of the claims on the IPNF were closed in the 1980s and 1990s. No active mining claims are located in the area of the proposed action.

### ***Geologic Hazards***

LPSRA is in a region with low levels of seismicity. A search of the Montana Bureau of Mines and Geology earthquake file turned up 82 earthquakes (out of nearly 14,000 in the file) located within 30 km of Runt Mountain since 1982. The earthquakes had magnitudes ranging from 1.5 to 4.2 on the Richter scale. Only about 27% of these quakes were between 3.0 and 4.2 on the Richter scale. The majority of the seismic events were rock bursts located near Wallace and Mullan, Idaho. The rockbursts are mining-induced earthquakes in the Coeur d'Alene mining district (Quamar and Stickney, 1983). Although the rock bursts are numerous, studies have

suggested it is very unlikely for mining-related seismic events in this district to exceed magnitudes of about 4.5, and thus they represent a relatively low seismic hazard (Stickney, pers. comm., 6/20/00).

The principal tectonic earthquake near Lookout Pass was a magnitude 4.2 event on August 1, 1988, which occurred near Thompson Pass on the state border about 10 km north of Lookout Pass. A fault plane solution for this earthquake suggested that it resulted from slip along a WNW-trending strike slip fault in the Lewis and Clark Zone. This event raises the possibility of larger tectonic earthquakes along the strike slip faults that comprise this portion of the Lewis and Clark Zone, although no fault scarps or evidence of late Quaternary faulting has been identified (Stickney, pers. comm., 6/20/00).

The USGS national hazard map (USGS, 2000a) shows that the ski area is in a relatively low seismic hazard area. There is a 2% probability of exceeding 17.5% g peak acceleration in 50 years.

### **3.2.2 Soils and Slope Stability**

#### ***Standards***

The LNF Forest Plan (1986a) provides guidance to all lands managed by the Forest in Montana and the Management Areas affected by the action alternatives. Water and soil resource standards for the LNF state that: *"All management activities will be designed or modified as necessary to protect land productivity."*

The IPNF Forest Plan (1987a) provides guidance for the proposed expansion area in Idaho. Objectives for soil resources state that: *"Management activities on Forest Lands will not significantly impair the long-term productivity of the soil or produce unacceptable levels of sedimentation resulting from soil erosion. This will be accomplished using technical guides developed in conjunction with the soil survey and best management practices necessary to protect soil productivity and minimize sedimentation."*

Soil resource standards for the IPHNF state that:

- *"Soil disturbing management practices will strive to maintain at least 80 percent of the activity area in a condition of acceptable productivity potential for trees and other managed vegetation."*
- *"Projects should strive to maintain sufficient large woody debris to maintain site productivity."*

#### ***Area of Analysis***

The area of analysis for direct and indirect effects is the same as the proposed expansion area and occurs on the north and south sides of Runt Mountain since this is the area of direct impacts to soil resources including disturbance, erosion and productivity. The area of analysis for cumulative effects is a 6-mile radius around Runt Mountain, which reaches to Mullan, Idaho on the west and Rainy Creek, Montana on the east. This area was selected to include the nearest town on the Idaho side and a similar geographic area on the Montana side and to include other recent forest activities. Information for this section was obtained from existing literature, Forest Service data and field visits to the site.



## Soil Features

Soil features in the proposed expansion area are closely related to the geology described above. Hard Precambrian quartzite and argillite are the dominant bedrock types. Weathering, erosion, glaciation and stream activity have modified these rock materials into the current soils. Volcanic ash-influenced loess, mainly from the eruption of Mt. Mazama (7000 years ago) forms the surface soil over the weathered bedrock subsoil.

Soil resources in the proposed expansion area were mapped by Forest Service soil scientists on the Lolo and Idaho Panhandle National Forests (USDA, 1988; pers. comm. Jerry Niehoff, 2000). **Table 3-1** lists the mapping units that would be affected by the LPSRA proposed action.

**Table 3-1: Landtype Mapping Units at the LPSRA Proposed Action**

Map Unit	Map Unit Components – Soils	Setting
32QA	Andic Cryochrepts,	Broad convex ridges
460A	Entic Cryandepts	Glacial trough bottoms
43QB	Andic Cryumbrepts	High elevation basins
440	Weakly weathered belt rock soils with ash surface	Ridgetops or gentle slopes
410	Typic Haplocryands	Mountain slopes
466	Typic Udivitrands	Mountain slopes
467	Typic Udivitrands – Humic Udivitrands complex	Mountain toeslopes & streambottoms

Soils in the proposed expansion area are covered with a surface layer of partially decomposed organic matter including conifer needles and other plant parts. This layer protects the surface from raindrop impact and surface flow erosion.

Soils on the upper elevation slopes are formed in weathered bedrock that has moved downhill under the force of gravity (colluvium) or has remained in place (residuum). The surface soil is volcanic ash-influenced loess that is 8-13 inches thick on the south side of Runt Mountain and 14-31 inches thick on the north side. This ash-influenced layer has a high moisture and nutrient retention capacity. The subsoil usually has a sandy loam or loam texture with a rock content ranging from about 25% in the upper soil to 70% in the lower soil. Soil depth is shallow to moderately deep near rock outcrops and is very deep across the remaining area.

Soils at the lower elevations are formed in a mixture of weathered bedrock (colluvium) and glacial deposits, especially glacial till and drift. The bedrock soils are similar to those on the upper slopes. The glacial soils are similar to the bedrock soils but usually have lower rock fragment contents in the subsoil. Soil depth is usually very deep except near rock outcrops, talus slopes and ridges. The proposed lower lift station on the south side of Runt Mountain is located on an alluvial terrace above the St. Regis River. This site is nearly level and has soil with a volcanic ash-influenced surface layer over very rocky and sandy subsoil.

Erosion and sediment delivery potentials for these soils are low to moderate. Erosion concerns are greatest where vegetation is completely removed such as on roads. Short-term erosion may occur on other disturbed surfaces until they are re-vegetated.

Most existing ski runs at LPSRA have sufficient vegetation cover to prevent excessive soil erosion (Dutton, 2000). Plants are a mixture of native species that re-established following the original run construction and introduced species including seeded grasses and invasive weeds. Minor erosion has occurred on some steep sections of primitive roads at the existing ski area.

The only current erosion problems in the vicinity are on roads and trails outside the existing ski area boundary. The most significant problem exists where Primitive Road A crosses a wetland on the south side of Runt Mountain (**Figure 1-2**). At this location, water draining from the wetland area has been captured by the primitive road and has caused gully erosion up to 12 inches deep. All action alternatives propose re-grading this location to eliminate the erosion problem. Erosion from snowmelt and rainstorms has also occurred along Forest Road 18591 near the proposed lower lift station on the south side of Runt Mountain. This erosion delivers sediment to vegetated areas along the south side of the road and no sediment has reached the St. Regis River. Erosion from snowmelt and rainstorms also has occurred along Primitive Trail A and Primitive Road B (**Figure 1-2**). All action alternatives would incorporate portions of these trails and would provide erosion control features (water bars) to prevent future erosion. All of these eroding sites deliver sediment into vegetated areas and no sediment is currently reaching streams.

### ***Slope Stability***

No landslides, slumps, mudflows or other slope stability problems have been identified in past soil and geologic mapping of the proposed expansion area. No slope stability problems were observed during fieldwork. Most soils mapped in the expansion area have high rock content and low clay content. Even on steep slopes these materials drain freely and are generally very stable.

## **3.2.3 Water Resources**

### ***Standards***

**Clean Water Act and Water Quality Limited Listings:** The Little North Fork of the Coeur d'Alene River from the headwaters to Laverne Creek is a 303d listed stream segment for flow alteration, habitat alteration and sediment. No TMDL has been established. The current requirement for this reach according to the TMDL rule (1998 Idaho Administrative Code IDAPA 16.01.02.054.05) is that the Forest Service implements the "best management practices for nonpoint sources deemed necessary to prohibit further impairment of the designated or existing beneficial uses." The Forest Service has agreements with the State to implement Best Management Practices (BMPs) or Soil and Water Conservation Practices for all management activities to meet the objectives for Forest Practices.

The St. Regis River is also listed as impaired under the Clean Water Act 303(d) regulations. The Clean Water Act and EPA Water Quality Planning and Management Regulations require the determination of allowable pollutant levels in 303(d) listed streams through the development of Total Maximum Daily Load Limits (TMDLs). No TMDLs have been established for the St. Regis or South Fork Coeur d'Alene Rivers.

Under authority of the Clean Water Act, the EPA and States must develop plans and objectives (TMDLs) that will eventually restore listed stream segments. In lieu of those plans, the Forest Service will demonstrate that their actions will result in a net decrease in the pollutant of concern or prohibit or delay potential recovery (IDHW, 1997; USDA Forest Service, 1995). Based on Sediment Risk analysis, WATSED results, and the other indicators for the project area as discussed in the "Effects to Fisheries at the Watershed Area Scale" section; the management Alternatives would result in a decrease in the pollutant of concern. Beneficial uses would not be further impaired and recovery would not be compromised. All Alternatives

are consistent with the Clean Water Act and Water Quality Limited Listings at the scale of the project area.

The St. Regis River is classified B-1 in the Montana Water Quality Standards. State water quality regulations prohibit any increase in sediment above “naturally occurring” concentrations in waters classified B-1. “Naturally occurring” is defined as conditions or material present from runoff or percolation over which man has no control or from developed land where all reasonable land, soil and water conservation practices have been applied. Accordingly, Best Management Practices (BMPs) have been developed by the Forest Service and State of Montana. The BMPs listed in the project file are implemented by the Forest Service to prevent degradation of State Waters. These BMPs have proven effective at preventing water quality effects (Montana DNRC 1998, USDA Lolo National Forest 2002, Idaho Department of Environmental Quality 2001).

**National Forest Management Act:** The National Forest Management Act requires the Forest Service to maintain the viability and habitat for native and desirable non-native species.

**Endangered Species Act, Section 7:** Within Section 7, federal agencies are required to carry out programs to conserve endangered and threatened species. Consultation is required to ensure that any action authorized, funded or carried out by a Federal agency is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

**Section 404 of Clean Water Act and Montana 310 Permit Process:** Culvert installation is guided by Best Management Practices and is regulated by the Montana 310 Permitting process and the U. S. Army Corps of Engineers (Section 404 of the Clean Water Act). Culvert installation may require a 310 Permit from Mineral and Shoshone County Conservation Districts and these groups should be contacted.

**NPDES Permit:** The Montana and Idaho Departments of Environmental Quality regulate the discharge of storm waters into state waters. The action alternatives would require a NPDES stormwater discharge permit since more than 5 acres would be disturbed for construction of buildings, parking, temporary roads and regrading of existing and new ski runs.

#### Lolo National Forest Plan

The LNF Forest Plan (1986a) provides guidance to all lands managed by the Forest in Montana and the Management Areas affected by the action alternatives. General water resource goals of the LNF are to:

- *“Provide a pleasing and healthy environment, including clean air, clean water, and diverse ecosystems.*
- *Meet or exceed State water quality standards.”*

Water resource standards for the LNF state that:

- *“The application of best management practices will assure that water quality is maintained at a level that is adequate for the protection and use of the National Forest and that meets or exceeds Federal and State standards.*
- *A watershed cumulative effects analysis will be made of all projects involving significant vegetation removal prior to these projects being scheduled for implementation. These*

*analyses will also identify existing opportunities to mitigate adverse effects on water-related beneficial uses, including capital investments for fish habitat or watershed improvement.*

- *Human-caused increases in water yields will be limited so that channel damage will not occur as a result of land management activities.*
- *Instream flow requirements for the LNF will be determined using procedures developed by the Regional Office. The Forest will meet the deadline set for filing to protect our water rights that were established prior to 1973.*

Management Area 9 of the LNF Forest Plan states as a goal to “*Provide for acceptable levels of water quality and fisheries habitat and improve opportunities for dispersed recreation*”.

#### Idaho Panhandle National Forest Plan

The IPNF Forest Plan (1987a) goals for water resources states that the Forest will:

- *“Maintain high quality water to protect fisheries habitat, water based recreation, public water supplies, and be within state water quality standards.*
- *Manage resource development to protect the integrity of the stream channel system.”*

Forest plan objectives state that: *“Management activities will comply with state water quality standards. This will be accomplished through the use of the Best Management Practices”*. The various Forest Plan standards echo this objective and state that *“Management activities on Forest lands will not significantly impair the long-term productivity of the water resource and ensure that state water quality standards will be met or exceeded.”*

Management Area 1 of the IPNF Forest Plan states as a goal that the Forest will *“Manage those lands suitable for timber production for the long-term growth and reproduction of commercially valuable wood products and meet or exceed state water quality standards”*.

**Inland Native Fish Strategy:** Since the implementation of the Forest Plan, the Forest Service has amended its Forest Plans with the 1995 Inland Native Fish Strategy (INFISH) Environmental Assessment. The INFISH EA is to be used in conjunction with the Forest Plans. The INFISH EA gives an interim direction to “maintain options for inland native fish by reducing risk of loss of populations and reducing potential negative impacts to aquatic habitat” (USFS, 1995). The Riparian Management Objective (RMO) of INFISH aims to *“achieve a high level of habitat diversity and complexity through a combination of habitat features, to meet the life history requirements of the fish community inhabiting the watershed”*.

The St. Regis River is a priority watershed under INFISH but the South Fork of the Coeur d’Alene River is not.

The standards and guidelines in INFISH include the following for recreation management: *“Design, construct, and operate recreation facilities... in a manner that does not retard or prevent attainment of the Riparian Management Objectives and avoids adverse effects on inland native fish. Complete watershed analysis prior to construction of new recreation facilities in RHCA within priority watersheds...”*

In addition, standards and guidelines in INFISH relating to road management may be relevant to this project because of the temporary roads that are proposed and the road improvement on the existing road. INFISH states that: *“For each existing or planned road, meet Riparian Management Objectives and avoid adverse effect to inland native fish by: ... avoiding sediment*

*delivery to streams from the road surface... avoiding disruption of natural hydrologic flow paths... and avoiding side-casting of soils or snow."*

### **Area of Analysis**

The analysis area for direct and indirect effects to water resources includes the watersheds that drain the north and south sides of the existing ski area and the area of the proposed action. This area is within the permit area and is most likely to have water resource impacts. The area of cumulative effects on the Montana side was chosen to match the 6<sup>th</sup> Category watershed that extends from Lookout Pass approximately 8 miles east to Randolph and Dominion Creeks. This area is approximately 25,000 acres and includes the St. Regis River drainage above the eastern Randolph Creek and Dominion Creek divides.

The area of cumulative effects on the Idaho side extends beyond the immediate 6<sup>th</sup> Category watershed boundary to the first mine tailings impoundment along the South Fork of the Coeur d'Alene River. The immediate 6<sup>th</sup> Category watershed was judged too small an area for cumulative effects analysis and the first mine tailings represented a dramatic change in hydrologic characteristics. Below the tailings impoundment, heavy metal pollution and streambank alterations have dramatically changed the physical and chemical characteristics of the watershed downstream. The watershed above the tailings impoundment (including the area of the proposed action) is not impacted by historic mine disturbances or metal occurrences that produce high metal concentrations in surface water. The analysis area for water resources begins at Lookout Pass and extends to the western drainage divides of Willow Creek and Deadman Gulch, an area of approximately 15,000 acres.

The action alternatives would require increased water use for expanded base area facilities. Forested areas would be cleared for ski runs and lifts, altering watershed conditions. Snowmaking has not been used at the area and none is proposed. Information for this section was obtained from existing literature, Forest Service data, field visits and discussions with hydrologists working in the area.

### **Watershed Characteristics**

The proposed action would occur on Runt Mountain in the headwaters of two separate drainages: the South Fork of the Coeur d'Alene River and the St. Regis River. The water quantity and quality of these rivers is discussed below. Stream characteristics are further described in **Chapter 3** – Fisheries. Pool frequency, water temperature, and large woody debris are described for streams on the north and south sides of Runt Mountain.

#### **St. Regis River**

The St. Regis River is part of the Middle Clark Fork Watershed (USGS Cataloging Unit 17010204) that extends from Missoula, Montana to Lookout Pass. The river is about 38.6 miles long and drains an area of approximately 303 square miles between the Montana/Idaho divide and the town of St. Regis, Montana (MDEQ, 2000). Discharges for the St. Regis River were obtained from USGS records for a stream gauge near St. Regis, Montana (USGS, 2000b). The St. Regis River ranges from a base discharge of approximately 90 cfs to over 4000 cfs during spring floods. The highest recorded flow was 29,000 cfs on 12/20/33. Average daily flow at the St. Regis gauging station is approximately 580 cfs. The seasonal runoff typically begins in late March or April and peaks in May or June. By September or October, discharges generally decrease to the base discharge level.

The closest proposed ground disturbance (other than roads) to a perennial stream on the Montana side is at the lower lift terminal. At this site, the St. Regis River would be approximately 400 feet from the nearest disturbance for ski run or lift construction (**Figures 2-1, 2-2 and 2-3**). The St. Regis River at this location is 5-10 feet wide, has a stable channel condition, and vigorous riparian vegetation.

Roads, 4-wheel drive trails, and single-track trails in the area of direct and indirect impact that have erosion problems on the Montana side include Primitive Roads A and B, Forest Road 18591, and Primitive Trail A (**Figure 1-2**). These roads have small areas of rill and gully erosion but these areas discharge to well-vegetated buffer sites and not to streams. Several other very primitive roads exist west of Mullan Pass, which are primarily used by cross-country skiers, hikers and mountain bikes. These trails may also be used occasionally by ATVs and trail bikes. Detailed information on the use of these roads and trails is not available.

The un-named road from St. Regis Pass is identified as an alternative snowmobile route under Alternative C. The most significant erosion problem on these roads and trails is on Primitive Road A and is discussed below. The remaining portions of these roads have small areas of rill erosion but discharge sediment into well-vegetated areas and not streams.

The analysis area for direct and indirect effects in the St. Regis watershed does not include any stream crossings by roads or trails. Current road and trail runoff is discharged to vegetated areas where sediment is deposited before reaching streams. The only road or trail that is located near a stream is Forest Road 18591, which parallels the St. Regis River southwest of the existing ski area (**Figure 1-2**). At this point, Forest Road 18591 comes within 200 feet of the St. Regis River for a distance of approximately 250 feet but no evidence of runoff or sediment has been observed reaching the river.

Each action alternative would cross portions of a wetland area on the south side of Runt Mountain (**Figures 2-1, 2-2 and 2-3**). At this location, water draining from the wetland area has been captured by Primitive Road A and has caused gully erosion up to 12 inches deep. All action alternatives propose re-grading and installation of water bars or rolling dips to eliminate this problem. Following use for timber harvest this road will be regraded and reduced in width to that necessary for cross-country skiing, hiking and mountain biking. The wetland is further described in **Chapter 3 – Vegetation**.

#### **South Fork Coeur d'Alene River**

Activities proposed on the north side of Runt Mountain would be conducted within the headwaters of the South Fork of the Coeur d'Alene River (USGS Cataloging Unit 17010302). The South Fork drains an area of about 287 square miles and extends from the Montana/Idaho divide to just west of Pinehurst, Idaho. During 1998 and 1999, the USGS (2000b) measured flows on the river about 1.25 miles upstream of Mullan, Idaho. Flows ranged seasonally from a base discharge of about 15 cfs to a peak of approximately 375 cfs. The seasonal runoff typically begins in late March or April and peaks in May or June. By September or October, discharges generally decrease to the base discharge.

Roads and primitive 4-wheel drive trails in the direct and indirect effects area on the Idaho side include Forest Road 3026 (the former railroad grade to Mullan) and Forest Road 3026a, the ski area maintenance road which provides access to the mountain top (**Figures 2-1, 2-2 and 2-3**). Both roads are partially vegetated and show little evidence of erosion except for small areas of

rill erosion on steep portions of Forest Road 3026a. Sediment from this erosion is discharged to adjacent well-vegetated areas and does not enter streams. A trail (Primitive Trail A) runs from the top of Runt Mountain to St. Regis Pass and is used by cross-country skiers, hikers and mountain bikers. Erosion has incised this trail and evidence of on-going rill and gully erosion is present. Sediment currently enters well-vegetated areas and does not reach streams. Erosion control is needed to prevent further erosion. Another trail connects Forest Road 3026 with St. Regis Pass west of the ski area and is proposed for improvement as an alternative snowmobile route under Alternative C. This trail is partially vegetated but also shows evidence of rill erosion that is discharged to vegetated areas.

The analysis area for direct and indirect effects on the Idaho side does not include any stream crossings by trails but does include two crossings with culverts by Forest Road 3026 northwest of the existing ski area (**Figure 1-2**). One crossing is on a perennial stream below Bitterroot Springs and the other is on an intermittent drainage without a defined stream channel approximately 2000 feet to the east. Both of these crossing are well-vegetated and do not have evidence of sediment delivery to the stream from the road surface. Both streams are routed through a series of artificial channels and culverts crossing Interstate 90 below the ski area.

One of the proposed action alternatives (Alternative B) would directly affect a perennial stream originating near Bitterroot Springs (**Figure 2-1**). Alternatives C and D would not affect this stream. This perennial stream on the north side of Runt Mountain above Interstate 90 is about 1 foot wide, has stable channel conditions, and vigorous riparian vegetation.

### ***Water Quality***

The watersheds of the St. Regis and South Fork Coeur d'Alene River experienced the fires of 1910 and have undergone various levels of road construction, timber harvest and mining activity. As discussed below, sediment from road and bridge construction, winter sanding, timber harvest, and uncontrolled ATV/4-wheel drive use has affected water quality in both rivers. Metals from hard rock mines have also affected water quality in the South Fork Coeur d'Alene River. Existing erosion and sedimentation problems on roads near the ski area are discussed in **Chapter 3 – Soil**. Existing road and ATV/4-wheel drive use is discussed in **Chapter 3 – Recreation**.

#### **St. Regis River**

The St. Regis River, a tributary of the Clark Fork River, is classified as a B-1 Stream under Montana Water Quality Classifications (ARM 17.30.607). Waters classified B-1 should be *“suitable for drinking, culinary and food processing purposes after conventional treatment; bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl, and furbearers; and agricultural and industrial water supply.”* No increases are allowed above *“naturally occurring”* concentrations of sediment which *“will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife”*.

“Naturally occurring” is defined as conditions or material present from runoff or percolation over which man has no control or from developed land where all reasonable land, soil and water conservation practices have been applied. This set of practices includes methods, measures, or practices that protect present and reasonably anticipated beneficial uses. The State of Montana has adopted Forestry Best Management Practices (BMPs) through its Non-point Source Management Plan as the principle means of meeting the Water Quality Standards.

The Clean Water Act and EPA Water Quality Planning and Management Regulations require the determination impaired [303(d) listed] streams and development of Total Maximum Daily Load (TMDL) limits for listed streams. The St. Regis River is on the 303(d) list as partially supporting aquatic life and cold water fisheries. The river fully supports agricultural, industrial, and recreation uses. Parameters of concern for the river are “habitat alterations and siltation” potentially from highway, road, and bridge construction, and silvicultural practices (EPA, 2000a). At this time, the Montana Department of Environmental Quality is in the process of developing guidelines by which landowners and agencies may conform to the requirements of the Clean Water Act with respect to section 303(d).

No recent timber harvest has occurred on the Montana side of the cumulative effects area. No water discharge permits to the St. Regis River are registered with the EPA (2000a).

As discussed in **Chapter 3 – Fisheries**, the upper St. Regis River has fewer habitat problems than in any other reach of this river studied during a 1998 survey (GT Consulting, 1999). Macroinvertebrate populations indicate good water quality in this reach of the river.

Water quality may also be affected by sediment from winter road sanding and uncontrolled ATV/4-wheel drive use. The contribution of sediment from winter road sanding is probably minor in the vicinity of Lookout Pass since no direct pathways for runoff and sediment delivery to streams has been observed. Uncontrolled ATV/4-wheel drive use may contribute sediment at stream crossings or where roads and trails occur near streams. No problems of this type have been identified near Lookout Pass but may occur in the surrounding watershed where ATV/4-wheel drive use is common (see **Chapter 3 – Recreation**).

The existing ski runs on the south side of Runt Mountain are located in the St. Regis River watershed. Erosion is not a problem on runs at the existing ski area (see **Chapter 3 – Soil**). Any runoff from the ski runs or existing ski area roads are diverted into adjacent vegetated areas where sediment is deposited. Erosion of existing roads near the ski area is discussed in **Chapter 3 – Soil**.

#### **South Fork Coeur d’Alene River**

The State of Idaho sets water quality standards for all waters. These standards are based on the intended use of the water and must be met by all management activities. The South Fork of the Coeur d’Alene River is listed as a 303(d) impaired water body, where the parameters of concern are metals and sediment. No potential sources of impairment are listed in the 303(d) database (EPA, 2000a), but the South Fork has been the receiving stream for numerous metal mines and processing facilities in the Silver Valley. Silver, lead, and zinc mines are located in Mullan, Idaho and historic mines are located along the Silver Valley and the South Fork of the Coeur d’Alene River.

Water quality may also be affected by sediment from timber harvests, winter road sanding and uncontrolled ATV/4-wheel drive use. One timber harvest project recently occurred in the cumulative effects area: the Snowstorm Canyon Project on the north side of St. Regis Pass and the north side of the South Fork of the Coeur d’Alene River in Idaho. This project, which was completed in the mid-1990s, included timber harvest on 507 acres, reforestation, road construction, and water quality mitigation structures. Monitoring results indicated that the project caused no significant increase in turbidity or sedimentation in the Little North Fork or the Upper Coeur d’Alene River (Williams, 1992).



The contribution of sediment from winter road sanding is probably minor in the vicinity of Lookout Pass since no direct pathways for runoff and sediment delivery to streams has been observed. Uncontrolled ATV/4-wheel drive use may contribute sediment at stream crossings or where roads and trails occur near streams. No problems of this type have been identified near Lookout Pass but may occur in the surrounding watersheds where ATV/4-wheel drive use is common (see **Chapter 3 – Recreation**).

Several mining facilities have discharge permits for the South Fork of the Coeur d'Alene River. Two of these mine facilities are located in or adjacent to Mullan, Idaho, 6 miles from Lookout Pass: the Star/Morning Mine and Millsite and Lucky Friday Mines operated by Hecla Mining Company. The mines are permitted to discharge metals and suspended solids into surface water (EPA, 2000a).

Downstream from Mullan, Idaho, the Bunker Hill Mining and Metallurgical industrial complex operated from 1889 to the 1980s. Now an EPA Superfund Site, the facility covers 21 square miles of the Coeur d'Alene River and the communities of Pinehurst, Page, Smelterville, Kellogg, and Wardner, Idaho. From 1889 to 1938, all liquid and solid residues of mine tailings from the Bunker Hill industrial complex were discharged directly into the South Fork of the Coeur d'Alene River and its tributaries. Settling ponds next to the river were added after 1938 and water treatment began in the early 1970s.

Smokestack and water discharges of wastes from mining and milling operations broadly dispersed lead, zinc, and other hazardous substances on surrounding hillsides and downstream through the Coeur d'Alene River basin. Thousands or possibly millions of tons of mill tailings, mine waste rock, and ore concentrates are spread across the site, including over 1,000 acres of the original flood plain of the South Fork of the Coeur d'Alene River. A 200-acre, unlined tailings impoundment on the site contributes an estimated 680 pounds per day of combined metals loading to the site groundwater. Cleanup at the site has included removing millions of yards of contaminated soil, capping contaminated areas, and rerouting the South Fork of the Coeur d'Alene River to excavate mine tailings (EPA, 2000b).

Although water quality downstream from the mines at Mullan, Idaho is impaired by mining activity, water quality above the mines near Mullan is good. As discussed in **Chapter 3 – Fisheries**, the South Fork Coeur d'Alene River near the Hale Fish Hatchery, several miles upstream of Mullan, Idaho (**Figure 1-1**), has macroinvertebrate populations and indices that indicate excellent water quality and aquatic habitat that is in good condition.

Most existing ski runs on the east side of Runt Mountain, the existing parking lot and the existing access road at Lookout Pass drain to the north in the watershed of the South Fk of the Coeur d'Alene River. Erosion is not a problem on the runs of the existing ski area (see **Chapter 3 – Soil**). Runoff from the parking lot and access road is diverted into adjacent vegetated areas where sediment and vehicle chemicals are deposited. The main road and its drainage ditch form a barrier to runoff between the parking lot and downstream receiving waters.

### ***Water Use and Water Rights***

Drinking water and fire suppression water for the LPSRA is supplied from a developed spring located across Interstate 90 to the east of the ski area. This spring is located in Montana in the SW,NW,SW of Section 33, T20N, R32W on Lolo National Forest lands near the Montana/Idaho

border. The spring water is gravity piped under Interstate 90 to the ski area. The designated place of use for the water right is in Section 4, T47N, R6E in the Idaho Panhandle NF.

Drinking water is stored in a 10,000-gallon tank and fire suppression water is stored in a separate 25,000-gallon tank. The 25,000-gallon storage tank is located within the existing LPSRA permit area on the east side of Runt Mountain. The 10,000-gallon tank is located just outside the existing permit boundary. The spring supplies sufficient water to the tanks by gravity to satisfy current demands.

The water rights listed with both the Montana Department of Natural Resources and Conservation (MDNRC) and the Idaho Department of Water Resources describes the US Dept. of Agriculture Forest Service (Forest Service) as the present owner. The Forest Service properly filed for existing water uses in both states. The Montana water right claim lists a diversion rate of 5.83 gpm (8,395 gallons per day) and Idaho water right lists a diversion rate of 4.49 gpm (6,466 gallons per day). A summary of the current water rights is included as **Table 3-2**. Current use at the ski area during the ski season has been metered as approximately 1,500 gallons per day.

**Table 3-2: Water Source and Estimated Use**

Water source	Water right #	Period of use	Flow rate (gal/min)	Use
Stream	Idaho filing 94-4102	11/1-2/28	4.49	Recreation
Developed Spring	Montana filing 76M-W052488	1/1-12/31	5.83	Domestic

Changes in existing water rights are allowed under Montana and Idaho law. If the amount of spring water use increases because of the action alternatives, additional or modified filings can be completed for each state.

### ***Floodplains and Riparian Areas***

Floodplains in the proposed expansion area are very narrow zones along the ephemeral and perennial streams (Dutton, 2000). These streams are bordered by steep slopes that confine floods near the main channel. Floodplains are only inches above the main streambank. Floodplains in Montana and Idaho are regulated under a combination of Federal, state and local regulations, which require permits for alterations that affect flood flows. Floodplain permitting is coordinated with enforcement of wetland regulations by the US Army Corps of Engineers and perennial stream regulations by the local conservation districts. Riparian and wetland areas are discussed further in **Chapter 3 - Vegetation**.

### ***Snowfall Records***

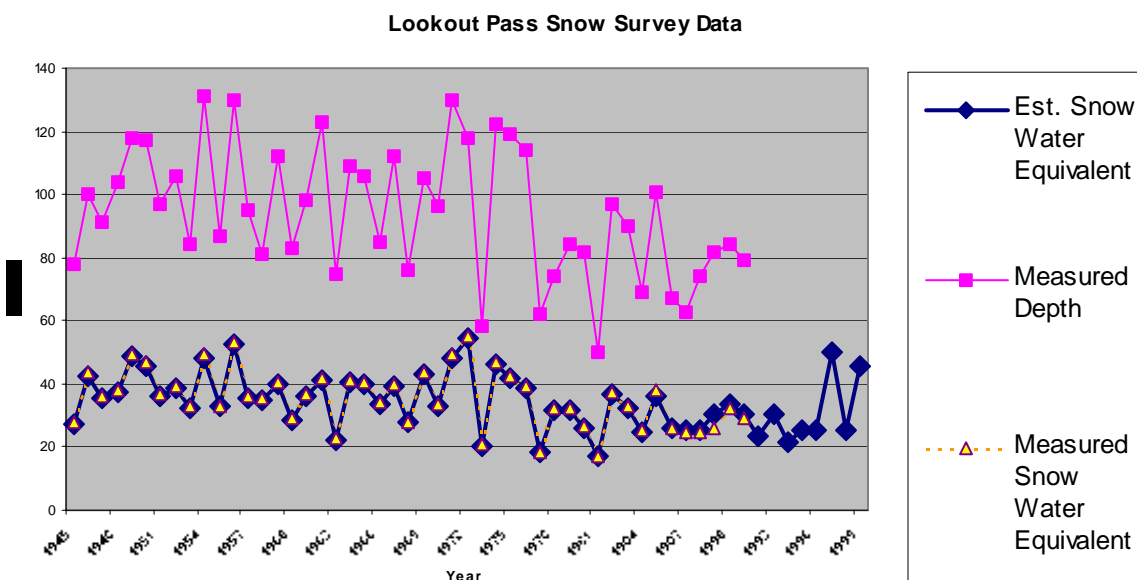
The ski area is operated from as early as November 1 through the winter until late-March or mid-April, depending upon snow conditions. LPSRA is often the earliest ski area to open and the last to close in the region. Years of light snowfall in the region have been successful times for LPSRA, as sometimes it is the only hill with good snow in the area. Snowmaking equipment has never been needed at Lookout. Snow depths at LPSRA have not limited skiing there in the past, even during dry snow years.

Snow survey information has been collected at Lookout Pass since 1945. **Figure 3-1** shows the maximum depths and snow water equivalent data at Lookout Pass. Snow depths were manually measured until 1991 and snow water equivalent data collection continues today by the Natural Resource Conservation Service (NRCS). Maximum depths are typically measured on

April 1 of each year according to the NRCS (Phil Morrissey, personal communication, 10/3/01). The data indicate that maximum yearly snow depths range from 50 to 131 inches, and the average maximum depth is 91 inches.

Even during dry years, the snow depths of 50 to 60 inches have been more than sufficient for skiing at LPSRA (Phil Edholm, personal communication, 10/3/01). For example, during the 2000/2001 ski season, LPSRA was able to open about 50% of its terrain by late November after receiving approximately 16 inches of snowfall. Lookout receives consistent and ample snowfall to cover the majority of its runs each year.

**Figure 3-1: Lookout Pass Snow Survey Data from April 1 of Each Year (NRCS, 2001)**



### **Storm Water Permits**

The Montana and Idaho Departments of Environmental Quality (MDEQ, IDEQ) regulate the discharge of storm waters into surface waters. These Departments administer National Pollutant Discharge Elimination System (NPDES) permits for storm water discharges. NPDES storm water permits for each state would be required for implementation of the action alternatives, as more than 5 acres would be disturbed during construction. NPDES permits typically require the operator to provide a "Notice of Intent" describing the construction activity of the project; and a "Storm Water Pollution Prevention Plan", which describes site characteristics and details, sources of potential pollutants (such as sediment) to storm water runoff and receiving surface waters, and measures to develop/implement BMPs to alleviate potential pollutants from reaching storm water discharges.

## **3.2.4 Air Quality**

### **Standards**

The 1967 Clean Air Act and Amendments to the Act (1972, 1977, 1990), 42 USC 7401 et seq.) provide direction to protect and enhance the quality of the nation's air resources and protect public health and welfare. The Environmental Protection Agency (EPA) developed primary air

pollution standards in compliance with the act and authorized the MDEQ and IDEQ to enforce the Clean Air Act.

Air Quality Standards exist in Idaho and Montana for pollutants, including ozone, carbon monoxide, sulfur oxides, lead, and particulate matter. The major concern associated with wood burning is production of particulate matter that is less than or equal to 10 microns in diameter (PM-10). These particles are the size that can penetrate the inner recesses of the lungs and cause health problems. The standards apply to daily and annual limits. The 24-hour standard requires concentrations of PM-10 to not exceed an average of 150 micrograms per cubic meter of air. Annual concentrations are not to exceed 50 micrograms per cubic meter of air.

In July, 1997, EPA promulgated a particulate matter National Ambient Air Quality Standard (NAAQS). There is now an annual and 24-hour PM<sub>2.5</sub> NAAQS. The annual standard is 15 µg/m<sup>3</sup> and the 24-hour standard is 65 µg/m<sup>3</sup>. A recent Supreme Court decision upheld the PM<sub>2.5</sub> NAAQS.

All open burning in Idaho and Montana is regulated by the restrictions and standards of the MDEQ and IDEQ. Major prescribed burners, including the Forest Service and other organizations, formed the Montana/Idaho Airshed Group in 1990. This group has established an air quality monitoring unit that provides daily air quality predictions and restrictions to its members from September 1 to November 30. The major goal of the group is to minimize or prevent the accumulation of smoke when prescribed burning is necessary. The Idaho smoke management program is voluntary and runs from March 1 through November 30. The Montana program is recognized by the EPA as "Best Available Control Technology" and permits are required in Montana, not Idaho.

The Prevention of Significant Deterioration portions of the 1977 Clean Air Act Amendments (P.L. 95-95) classified areas of the country as Class I, II, or III. Class I areas are all international parks, national wilderness, memorial parks greater than 5,000 acres, and all national parks greater than 6,000 acres that existed on August 7, 1977 (P.L. 95-95, Part C. Sec. 162(a)). All other areas (unless designated at a later time) are Class II.

The nearest Class I area is the Cabinet Mountains Wilderness, which is located 35 miles northeast of Lookout Pass. The most stringent Federal and state air quality regulations apply to this and other Class I areas. Federal land managers are also required to protect the Air Quality Related Values (AQRVs), such as visibility, of Class I lands. Section 169a of the Clean Air Act amendments of 1977 established a national goal of remediating existing and preventing future man-made visibility impairments in Class I airsheds.

The standards of the Idaho Panhandle National Forest Plan (IPNF, 1987a) state that "*All Forest Service activities and those permitted on the forest shall comply with applicable regulatory and administrative standards and procedures.*" The Lolo National Forest Plan (LNF, 1986a) does not provide specific standards for air quality, but says that the LNF will: "*Provide a pleasing and healthy environment, including clear air, clean water, and diverse ecosystems.*" All slash burning would be executed in compliance with Federal, State, and local air quality laws, and therefore would be in compliance with the Forest Plans.

The National Ambient Air Quality Standards (NAAQS) are established by EPA for carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, lead, and particulate matter (PM). A conformity determination must be made for projects emitting air pollutants over specified de

minimis levels to show that the projects will not contribute to any NAAQS violations. If a project will contribute to the NAAQS violations, then emissions must be reduced or offset.

To comply with EPA NAAQS standards, major prescribed burners formed the Montana/Idaho Airshed Group, who provide daily air quality predictions and restrictions. The Forest Service is permitted to burn based on compliance with burning restrictions set by the Airshed Group.

### ***Area of Analysis***

The area of analysis for direct, indirect, and cumulative effects to air resources is located within a 20-mile radius of the LPSRA which was chosen to include potentially affected communities in the Silver Valley and St. Regis River Valley. This area of analysis is part of Airsheds 1 and 2 in northwestern Montana and Airshed 11 in northern Idaho. Montana and Idaho are divided into 25 airsheds established by the Montana/Idaho Airshed Group. The cooperative Smoke Management Plan established by the group was developed to minimize and/or prevent the accumulation of smoke due to prescribed burning and meet Federal and State air quality standards. The dominant wind direction in the area is from the southwest and west, so the area of potential effect from the proposed action would most likely be east and northeast of Lookout Pass in Airsheds 1 and 2 in northwest Montana. Emissions from the action alternatives are expected to be from burning slash and vehicle emissions from traffic to and from the area. Air quality baseline information was gathered through literature research and consultation with the air quality specialists on the Idaho Panhandle National and Lolo National Forests.

### ***Existing Conditions***

#### **Regional Conditions**

The Idaho Panhandle National Forest Plan (1987a) states that the IPNF meets current state and Federal air quality standards except for limited periods during the late summer or during winter temperature inversions along valley bottoms. The late summer air quality problems are caused primarily by burning grass and wheat stubble fields. National Forest prescribed burning occasionally causes localized problems. Fall planting activities on the eastern Washington Palouse wheat fields release dust particulate. Other sources of suspended soil particles include dirt roads, logging, and road construction. Industrial smoke and automobile emissions enter the IPNF air shed from Spokane, Washington, and the communities and vehicles along Interstate 90.

#### **Local Conditions**

The land within the existing and proposed ski area is designated as Class II. This classification allows a specific maximum increase of sulfur dioxide, nitrogen dioxide, and particulate above baseline concentration. Currently, there are no emission sources within or near the area that count against this increment.

Air quality within the existing and proposed ski area is generally considered to be good. The area meets all Federal and state ambient air quality standards. The nearest air quality non-attainment area is in the Pinehurst area just east of Kingston, Idaho, 27 miles west of Lookout Pass. PM-10 concentrations in the Pinehurst area are the result of emissions from roadway dust and other construction activities, mining, and remediation operations within the Silver Valley. However, these sources are not close enough to affect air quality in the proposed expansion area.

Non-point sources of pollution within 20 miles of the proposed expansion area include road dust and tailpipe emissions from vehicles on Interstate 90, snowmobiles along groomed trails across Lookout Pass, prescribed fire and wildfire, wood burning stoves, road construction, vehicle traffic on unpaved roads, agricultural, logging, and mining activities, and ski area grooming and maintenance machinery.

Dust resulting from vehicle traffic use along the unpaved access road to LPSRA is of short duration and has minor impacts on air quality. The road is only 1000 feet long and is moist or snow-packed during most of the ski season. Emissions from winter sanding on this road or summer travel are immeasurable in comparison with emissions from Interstate 90.

### **3.3 BIOLOGICAL ENVIRONMENT**

#### **3.3.1 Fisheries**

##### ***Standards***

##### Idaho Panhandle National Forest

The goals of the 1987 Idaho Panhandle Forest Plan related to fish populations and stream habitat are listed below:

- *“Provide for diversity of plant and animal communities.*
- *Manage the habitat of animal and plant species listed under the Endangered Species Act to provide for recovery as outlined in the species recovery or management plan. Manage habitat to maintain populations of identified sensitive species of animals and plants.*
- *Manage fisheries habitat to provide a carrying capacity that would allow an increase in the Forest's trout population.*
- *Maintain high quality water to protect fisheries habitat, water based recreation, public water supplies, and be within state water quality standards.*
- *Manage resource development to protect the integrity of the stream channel system.”*

The objectives of the 1987 Forest Plan goals related to fisheries are:

- *“Riparian Areas: Riparian Areas will be managed to feature dependent resources (fish, water quality, maintenance of natural channels, certain vegetation, and wildlife communities) while producing other resource outputs at levels compatible for the objective for dependent resources.*
- *Fisheries: The IPNF will be managed to maintain and improve fish habitat capacities in order to achieve cooperative goals with the State Fish and Game Department and to comply with state water quality standards. Fisheries and timber riparian management activities will be coordinated in order to maximize the contribution of riparian vegetation to aquatic habitats. An annual program of direct habitat improvement work will be pursued. Several roadless stream and river segments will be managed as low public access areas to maintain a diversity of fishing experiences on the Forest.*
- *Water: Management activities will comply with state water quality standards. This will be accomplished through the use of the Best Management Practices. The outcome of these best management practices will be monitored to determine their effectiveness.”*

### Lolo National Forest

A goal of the Lolo National Forest Plan (1986a) related to fisheries is to: *“Meet or exceed water quality standards”*. Objectives of the Plan state that: *“The Forest plan provides habitat for viable populations of the diverse wildlife and fish species on the forest, with special attention given to species dependent on snags, old growth areas, and riparian zones.”* Standards of the Forest Plan regarding water resources are listed below.

- *“The application of best management practices will assure that water quality is maintained at a level that is adequate for the protection and use of the National forest and that meets or exceeds Federal and State standards”.*
- *A watershed cumulative effects analysis will be made of all projects involving significant vegetation removal prior to these projects being scheduled for implementation. These analyses will also identify existing opportunities to mitigate adverse effects on water-related beneficial uses, including capital investments for fish habitat or watershed improvement.*
- *Human-caused increases in water yields will be limited so that channel damage will not occur as a result of land management activities.*
- *Instream flow requirements for the LNF will be determined using procedures developed by the Regional Office. The Forest will meet the deadline set for filing to protect our water rights that were established prior to 1973.”*

Standards of the LNF Forest Plan regarding fisheries are listed below.

- *“All threatened and endangered species occurring on the Lolo including the grizzly bear, bald eagle, peregrine falcon, and gray wolf will be managed for recovery to non-threatened status. Forest Service designated essential habitat will provide interim management direction for those species until critical habitat is designated by the Fish and Wildlife Service.*
- *Management practices in essential habitat of threatened and endangered species must be compatible with habitat needs of the species...consistent with the goal of recovery to non-threatened status...*
- *Land management activities shall be designed to have a minimum impact on the aquatic systems, free from permanent or long-term unnatural imposed stress. (A long-term stress is defined as a downward trend of indicators such as aquatic insect density or diversity, fish populations, intra-gravel sediment accumulations, or channel structure changes that continue for more than 1 hydrologic year as determined by procedures outlined in the Forest Plan Monitoring Requirements.) Project level assessments will address the potential impacts of management activities on off-Forest aquatic resources by considering and evaluating downstream data wherever possible.”*

All alternatives are in compliance with the general fisheries goals and objectives of the Idaho Panhandle and Lolo National Forest Plans. INFISH compliance is discussed below.

### INFISH

Since the implementation of the Forest Plan, the Forest Service has amended its Forest Plans with the 1995 Inland Native Fish Strategy (INFISH) Environmental Assessment. The INFISH EA is to be used in conjunction with the Forest Plans. The INFISH EA gives an interim direction to "maintain options for inland native fish by reducing risk of loss of populations and reducing potential negative impacts to aquatic habitat" (USFS, 1995). The Riparian Management Objective (RMO) of INFISH aims to *“achieve a high level of habitat diversity and complexity*

*through a combination of habitat features, to meet the life history requirements of the fish community inhabiting the watershed’.*

The St. Regis River is a priority watershed under INFISH but the South Fork of the Coeur d’Alene River is not.

The standards and guidelines in INFISH include the following for recreation management: *“Design, construct, and operate recreation facilities... in a manner that does not retard or prevent attainment of the Riparian Management Objectives and avoids adverse effects on inland native fish. Complete watershed analysis prior to construction of new recreation facilities in RHCA’s within priority watersheds...”*

In addition, standards and guidelines in INFISH relating to road management may be relevant to this project because of the temporary roads that are proposed and the road improvement on the existing road. INFISH states that: *“For each existing or planned road, meet Riparian Management Objectives and avoid adverse effect to inland native fish by: ... avoiding sediment delivery to streams from the road surface... avoiding disruption of natural hydrologic flow paths... and avoiding side-casting of soils or snow.”*

### **Area of Analysis**

The analysis area for direct and indirect effects to fishery resources includes the watersheds that drain the north and south sides of the existing ski area and the area of the proposed action. This area is within the permit area and is most likely to have fisheries resource impacts. The area of cumulative effects on the Montana side is the 6<sup>th</sup> code hydrologic unit (HUC) that extends from Lookout Pass approximately 8 miles east to the drainage divide east of Randolph Creek. This area is approximately 25,000 acres and includes the St. Regis River drainage above the Randolph Creek divide. The area of cumulative effects in Idaho extends beyond the immediate 6<sup>th</sup> code HUC boundary to the first tailings impoundment along the South Fork of the Coeur d’Alene River. At this point, heavy metal pollution and stream bank alterations have dramatically changed the physical and chemical characteristics of the watershed downstream. This analysis area begins at Lookout Pass and extends to the western drainage divides of Willow Creek and Deadman Gulch, an area of approximately 15,000 acres. Information for this section was obtained from field work completed for the Yellowstone Pipeline EIS (GT Consulting, 1999), existing literature, Forest Service data, field visits and discussions with other fishery biologists working in the area.

### **Existing Conditions**

The proposed action is located within two watersheds, the South Fork Coeur d’Alene River in Idaho, and the St Regis River in Montana. The South Fork Coeur d’Alene River drains the north side of Runt Mountain, whereas the St. Regis River drains the south side of the mountain (**Figure 1-2**). Each of these watersheds is discussed below.

#### **St. Regis River**

The Montana portion of the proposed action is located in the headwaters of the St Regis River. The St. Regis River is a core area for bull trout (*Salvelinus confluentus*), listed as a threatened species under the Endangered Species Act. Other fish species found in the basin include westslope cutthroat trout (*Oncorhynchus clarki lewisi*), rainbow trout (*Oncorhynchus mykiss*), brook trout (*Salvelinus fontinalis*), brown trout (*Salmo trutta*), largescale sucker (*Catostomus*



*macrocheilus*), longnose sucker (*Catostomus catostomus*), shorthead sculpin (*Cottus confusus*), and mountain whitefish (*Prosopium williamsoni*) (MRIS, 1997). Westslope cutthroat trout are listed as a sensitive species by the U.S. Forest Service in this region.

The St. Regis River is on the list of impaired water bodies for the State of Montana and is considered to be a low priority for Total Maximum Daily Load development in this reach (MDEQ, 1998). Impaired uses are cold water fishery (trout) and aquatic life support. The probable impairment causes are highway/road/bridge construction and silviculture.

In the vicinity of the proposed action, the St. Regis River is a 2<sup>nd</sup> order stream with a “B” channel type at an elevation of approximately 4,400 feet (GT Consulting, 1999). A section of the St. Regis River at T20N R32W Section 32 was sampled for fish, habitat, macroinvertebrates and algae in September 1998. It was found that the average width of the St. Regis River was 7.9 feet and the average depth was 0.5 feet. Gradient within the sample site was 3.3%.

Potential limiting factors noted during the habitat survey included lack of habitat diversity due to the shallowness of the stream and temperature problems due to the cold temperatures at this elevation. Most of the available woody debris was of smaller sized materials, as most of the riparian zone was willow and other shrubs. There are beaver ponds in the middle of the reach and meadow on the top half of the reach. There was a considerable amount of undercut banks, (11%), but also a considerable amount of unstable banks (10%) (GT Consulting, 1999).

Fish data were collected by snorkeling. Only three species were observed at this site. Brook trout was the most abundant species found (521/mile). Cutthroat trout was the only other trout species found (20/mile) (**Table 3-3**). Sculpins were the only non-game species found. The overall numbers of fish observed were relatively low. The numbers of sensitive fish (cutthroat trout) were low. No bull trout were found in the sample reach (GT Consulting, 1999).

Fish samples collected by Montana Fish, Wildlife and Parks in 1953 found westslope cutthroat and brook trout.

Redd surveys were conducted on the St. Regis River on September 25 and October 24, 1997. During the October redd survey, a probable redd was located upstream of the survey reach. This redd was 1.1 feet X 0.8 feet in diameter in “nice spawning substrate” (GT Consulting, 1999). This site on the St. Regis River contained an abundant macroinvertebrate population (4,950/m<sup>2</sup>), with more than average numbers of taxa and EPT (ephemeroptera, plecoptera, and trichoptera) taxa. The Hilsenhoff biotic index was 3.29, indicating good biotic conditions for a mountain stream.

Overall, fewer habitat problems were noted in this reach of the St. Regis River (T20N R32W Section 32) than in any other reach of this river studied during the 1998 survey. Macroinvertebrate populations indicate good water quality. Two sensitive fish species may inhabit this reach of river, but the baseline survey did not find bull trout within this reach. Although the MRIS (1997) database records rainbow and brown trout inhabiting this reach, this is unlikely given the results of the field surveys.

**Table 3-3: Fisheries Data Collected by Snorkeling in 1998 (source: GT Consulting, 1999)**

River	Location	Species*	Site Length (ft)	Channel Width (ft)	Number Observed	Density (#/mile)	Density (#/acre)
Coeur d'Alene, S. Fork	T48N R6E section 32.	BKT < 200 mm	538	15.6	1	10	5
		> 200 mm			1	10	5

	Upstream of hatchery	CUT < 200 mm			58	569	301
		> 200 mm			1	10	5
		RBT < 200 mm			1	10	5
		> 200 mm			2	20	10
St. Regis	T20N R32W section 32. Upstream of Copper Gulch	BKT < 200 mm	516	7.9	49	501	524
		> 200 mm			2	20	21
		CUT < 200 mm			1	10	11
		> 200 mm			1	10	11
		SCUL			1	10	11

\*BKT - Brook Trout; RBT - Rainbow Trout; CUT - Cutthroat Trout; SCUL – Sculpin

A fish passage barrier is present on the St Regis River downstream of the proposed project at the Interstate 90 highway crossing. A culvert at this location blocks upstream fish passage (Riggers, Lolo National Forest, pers. comm., December 6, 2000). Therefore, any sensitive fishes located upstream of this barrier are isolated from downstream populations, increasing the risk of extinction.

At the headwaters of the St. Regis River there are the St. Regis Lakes. Brook trout have been found in these lakes in the past (Riggers, Lolo National Forest, pers. comm., December 6, 2000; Montana Fish, Wildlife, and Parks, file data). The presence of brook trout in these lakes and in the St Regis River itself is a threat to any bull trout that may be present in the river. Brook trout are known to hybridize with bull trout, leading to the demise of bull trout populations. The presence of brook trout in the watershed increases the risk of extinction of bull trout in the watershed. Overall, bull trout in the St Regis River are functioning at unacceptable risk of extinction.

### **South Fork Coeur d'Alene River**

The South Fork Coeur d'Alene River was sampled in 1998 in the area adjacent to the Hale Fish Hatchery (**Figure 1-1**). In the study area, the South Fork Coeur d'Alene River is a 3<sup>rd</sup> order stream with a "B" channel type at an elevation of approximately 3650 feet. The average width of the South Fork Coeur d'Alene River was 15.6 feet and the average depth was 0.6 feet. Gradient within the study area was 1.6%. Potential limiting factors noted during the habitat survey were lack of habitat diversity due to shallow, homogeneous water.

Habitat is primarily low gradient riffle (60.9% of stream length). The width/depth ratio was high (30.5). Otherwise, most habitat indices were good for this site (GT Consulting, 1999).

Both snorkel surveys and electrofishing surveys were completed on this site in August 1998. Three species were found in the snorkel survey (brook, cutthroat, and rainbow trout), totaling over 600 fish/mile. Cutthroat trout were the most common fish species (579/mile) (**Table 3-3**). No sculpin were found in the snorkel surveys, but 1,840 sculpin/mile were collected in the electrofishing surveys (GT Consulting, 1999).

Sculpins are known to be difficult to detect in snorkel surveys, so the disparity in the sculpin data is not unusual. Sculpins were not identified to the species level during this study so it is not known which species of sculpin was found. It is possible that the torrent sculpin (*Cottus rhotheus*), which is listed as a sensitive species in this region, is the sculpin that is found in the South Fork of the Coeur d'Alene River. According to a distribution map published by the Interior Columbia Basin Ecosystem Management Plan, torrent sculpin are found in some portions of the Idaho Panhandle, possibly including the South Fork of the Coeur d'Alene River (ICBEMP,

2000). However, torrent sculpin are usually found in larger rivers and may not be present in the upper reaches of the South Fork Coeur d'Alene River where the proposed action may occur (E. Linder, USDA Forest Service, pers. comm., June 23, 2000).

The U.S. Forest Service does not consult with the U.S. Fish and Wildlife Service on bull trout for projects located in the South Fork of the Coeur d'Alene River because of the long history of mining, and other human impacts in this watershed. The likelihood of any management action in the basin resulting in incidental take of bull trout is low if not zero (Idaho Panhandle National Forest, 1998). The poor water quality of the South Fork downstream from the Lucky Friday Mine precludes it from priority status regarding bull trout recovery. Sensitive species in the drainage are westslope cutthroat trout and torrent sculpin.

Redd surveys conducted at near the Hale Fish Hatchery on September 26 and October 23, 1997 found no redds (GT Consulting, 1999). Data collected by the Idaho Department of Fish and Game in the "Hecla Channel" area upstream from Mullan found there were cutthroat, rainbow, cutthroat X rainbow, and brook trout and also sculpin, kokanee (*Oncorhynchus nerka*), and chinook (*Oncorhynchus tshawytscha*) (Apperson et al., 1987). A sample collected in 1984 found that cutthroat was the most abundant species, with rainbow next most abundant. Brook trout and rainbow X cutthroat were the least most abundant species (Apperson et al., 1987). These sample sites were downstream of the hatchery sample site sampled in 1998, which may explain the variation in results.

The South Fork Coeur d'Alene River near the Hale Fish Hatchery contained a higher than average macroinvertebrate population, with higher than average numbers of taxa and EPT taxa in comparison to other "B" channel streams studied during surveys in 1997 and 1998 (GT Consulting, 1999). The Hilsenhoff biotic index was a low 2.66, indicating excellent biotic conditions. Overall, macroinvertebrate indices indicate excellent water quality.

Overall, aquatic habitat near the Hale Fish Hatchery is in good condition and macroinvertebrate populations indicate unimpaired water quality. Fish populations are dominated by subcatchable sized cutthroat trout with smaller numbers of rainbow and brook trout. A few catchable size fish are present (GT Consulting, 1999).

### **3.3.2 Vegetation**

#### ***Standards***

The standards that provide direction for protection and management of vegetation resources comes from the following principle sources:

- Endangered Species Act of 1973 (as amended).
- National Forest Management Act of 1976.
- Forest Plan.
- Weed Management Plans and FEIS.

Section 7 of the Endangered Species Act directs federal agencies to ensure that actions authorized, funded, or carried out by them are not likely to jeopardize the continued existence of threatened or endangered species or result in destruction or adverse modification of their critical habitat.

The National Forest Management Act (NFMA) provides for balanced consideration of all resources. It requires the Forest Service to plan for diversity of plant and animal communities. Under its regulations, the Forest Service is to maintain viable populations of existing and desired species, and to maintain and improve habitat for management indicator species.

#### Idaho Panhandle National Forest

The goals and objectives of the 1987 Idaho Panhandle Forest Plan related to vegetation are:

- *“Provide for a diversity of plant and animal communities.”*
- *“Riparian areas will be managed to feature dependent resources (fish, water quality, maintenance of natural channels, certain vegetation and wildlife communities) while producing other resource outputs at levels compatible for the objective for dependent resources.”*

Vegetation standards for the IPNF include:

- *“Manage the habitat of sensitive species to prevent further declines in populations that could lead to listing under the Endangered Species Act.”*
- *“Maintain at least 10% of the forested portion of the IPNF as old growth.”*

#### Lolo National Forest Plan

The LNF Forest Plan (1986a) provides guidance to all lands managed by the Forest in Montana and the Management Areas affected by the action alternatives. Desired future conditions on the forest include:

- *“There will be sufficient old-growth habitat available to fulfill the needs of old-growth dependent wildlife.”*

Management area standards for the action alternatives include:

- *Tree removal will be limited to that required to eliminate safety hazards or permit construction or expansion of facilities.*

#### Weed Management Plans, FEISs and Guidance Documents

Noxious weed management plans and FEIS documents have been completed that cover the LPSRA including the Coeur d’Alene River Ranger District Noxious Weed FEIS and the Lolo National Forest Noxious Weed FEIS. Additional direction on weed management is provided in the REGION 1 SUPPLEMENT NO. 2000-2000-1 NOXIOUS WEED MANAGEMENT.

### ***Area of Analysis***

The area of analysis for direct and indirect effects is the same as the proposed expansion area and occurs on the north and south sides of Runt Mountain since this is the area of direct impacts to vegetation resources including disturbance and productivity. The area of analysis for cumulative effects is a 6-mile radius around Runt Mountain, which reaches to Mullan, Idaho on the west and Rainy Creek, Montana on the east. This area was selected to include the nearest town on the Idaho side and a similar geographic area on the Montana side and to include other recent forest activities.

### ***Existing Vegetation***

Vegetation in the proposed expansion area is dominated by lodgepole pine timber types on the south side of Runt Mountain (Montana side) and mixed species timber types on the north or Idaho side (Dutton, 2000; Erikson, 2000). The south side lodgepole pine stands also contain small amounts of subalpine fir, grand fir, western white pine and Engelmann spruce. The north side stands are a mixture of western hemlock, western larch, western white pine, grand fir, Douglas-fir, subalpine fir and Engelmann spruce. Small areas of western red cedar are also present, mainly along drainages. The south side stands are mainly within the subalpine fir series and the north side stands are mainly within the western hemlock and subalpine fir series (Pfister and others, 1977). Tree ages are mainly about 90 years old and date to the 1910 fire episode.

The most common shrubs in the proposed expansion area are grouse whortleberry, alder, blue huckleberry, mountain maple, snowberry, twinflower, kinnikinnick and menziesia. The most common grasses are pinegrass and elk sedge with bluejoint along some drainages. The most common forbs include beargrass, fireweed, queen's cup beadlily, white hawkweed, bracted lousewort, sidebells wintergreen and western meadowrue. Additional species are discussed under "Wetlands and Riparian Areas" below. Many other species were observed and are documented in the project file (Dutton, 2000; Elliott, 2000).

Vegetation on the existing ski runs at LPSRA is dominated by native species but includes many non-native species especially at the lower elevations. Native species include all tree species from the adjacent stands and many of the native shrubs, especially grouse whortleberry, blue huckleberry, alder, kinnikinnick and ceanothus. The most common grasses include the natives elk sedge and pinegrass, as well as the non-native timothy, Kentucky bluegrass, orchard-grass and smooth brome. The most common native forbs include fireweed and western yarrow. Weeds are also a component of the ski run vegetation, as discussed below (Dutton, 2000; Elliott, 2000).

### ***Existing Insects and Diseases***

Dwarf mistletoe is present in some lodgepole pine in the proposed expansion area but currently is only affecting the growth and health of individual trees. Red ray rot, comandra and western gall rust are also common throughout the area. Insects and diseases are not causing widespread mortality at this time but may become a greater factor in forest health as stands continue to age. Increases in stand age and disease severity would also increase the risk of bark beetle attack. Provisions for reducing insect and disease risk are will be in timber harvest plans (see project file – Pests).

### ***Probability of Change***

The probability of change in forest stands in the proposed expansion area will continue to increase due to increased risk from disease, insects and other mortality sources. Tree vigor and ability to resist disease and insect attack will continue to decrease as stand age increases. Increased human use in the surrounding landscape will increase potential for fire.

Timber in the proposed expansion area is almost exclusively in the sawtimber category. Timber removal would occur on both the north and south aspects of Runt Mountain in the sawtimber class. This area is not being converted to timber management but would emphasize

recreational use with limited timber removal in coordination with recreation goals. None of the area harvested for ski runs would be allowed to regenerate into future stands as long as the ski area continues to operate.

### ***Timber Harvest***

Timber harvest in the last half century has been for clearing ski runs at LPSRA. Only limited evidence of past timber harvest were found in the proposed expansion area on Runt Mountain as scattered stumps, some of which pre-date the 1910 fire (see project file – Vegetation, Old Growth Analysis).

### ***Super Trees***

Twenty-four western white pine “super trees” have been identified on the lower south slopes on Runt Mountain (Cole, 2000). These trees are considered to have superior genetics. Cones and pollen have been collected from these trees for many years. Only one of these trees (#2107) is within the area potentially affected by the proposed expansion and would be prominently marked on the ground before timber removal or other activities commence.

### ***Old Growth***

Old growth stands are those that developed in the absence of major disturbance events or allogenic processes (e.g., weather and climate change). From a structural perspective, they are assumed to have the following characteristics (Oliver and Larson, 1990):

- A reverse-J shape diameter distribution.
- A variety of tree species and other vegetation. Frequently this is composed of shade intolerant overstories and shade tolerant understories. (However, in the drier Douglas-fir sites old growth stands may be single species, single canopy stands.)
- Many large, old trees, frequently widely spaced.
- A relatively continuous vertical distribution of foliage, multiple canopy levels. (However, on dry, cold sites all Douglas-fir and lodgepole pine can form single canopy stands.)
- Abundant snags (standing dead trees).
- Large, downed logs on the forest floor.
- A relatively steady state volume, where mortality equals growth.
- A relatively steady state nutrient condition, where a large amount of internal recycling occurs.

Criteria for old growth timber stands have been developed by the Forest Service (Green and others, 1992) and were used to evaluate stands on Runt Mountain. Separate old growth analyses were conducted for the portion of the project area on each forest. Both analyses included air photo examination and/or query of the timber stand database for age and other criteria to identify potential old growth stands or old growth recruitment stands (Erikson 2000, Truscott 2002). Both analyses concluded that mainly due to the influence of the 1910 fire, no stands were old enough to meet old growth criteria and most lacked other criteria than age. The entire project area on both forests was inventoried on the ground to confirm that no old growth is present (Dutton, 2000; Elliott, 2000).

The IPNF has identified 10.9% of its forested area as old growth (includes potential recruitment old growth) to comply with the IPNF standard. The LNF has identified 8.42% of its forested area as old growth (includes potential recruitment old growth) to comply with the LNF standard. The small area of early to mid-seral forest affected by the proposed action will have little impact on the ability of either forest to meet old growth goals in the future. Additional information on old growth is presented in the project file.

### ***Fire and Forest Fuels***

Historically, fires in the Runt Mountain timber types were either low-intensity understory burns or higher-intensity burns that caused widespread mature tree mortality. These higher-intensity fires are usually crown fires and are difficult to suppress. The mature age and size structure in the proposed expansion area makes it likely that fire risk will increase as insects, diseases and other factors increase tree mortality.

Ski runs and maintenance roads have broken up the continuous forest canopy and fuels at the existing ski area. Understory woody fuels have mostly been removed from ski runs and from the edges of many runs. Ski area maintenance roads provide narrower breaks in forest canopy and fuels. Although most roads are not wide enough to halt crown fires they can be used for suppression access and as a starting point for effective crown fire breaks.

No private residences are present at LPSRA or in the proposed expansion area. Predominant wind directions are from the west.

### ***Endangered, Threatened, Sensitive and Concern Plants***

No threatened, endangered or sensitive plant species (TES) were observed in the proposed expansion area (Dutton, 2000; Elliott, 2000). A search of the Montana Natural Heritage Program database did not reveal any past records of threatened, endangered or sensitive plants. Plants of special concern were not observed either.

Discussions with Forest Service personnel (Valerie Goodnow, pers. comm., 2000) and review of habitat suitability revealed that no endangered or threatened plant species are likely to occur in the proposed expansion area. Nineteen of twenty-eight sensitive species identified on the St. Joe and Coeur d'Alene Forests could potentially occur in the proposed expansion area. Nine of these species are in the *Botrychium* genus. Four of 22 plants of special concern identified on the St. Joe and Coeur d'Alene Forests could potentially occur in the proposed expansion area.

TES plant species were inventoried on two dates during the 2000 field season (Dutton, 2000; Elliott, 2000). Plants of special concern were inventoried at the same time. These inventories concentrated on the areas to be disturbed by the action alternatives and on the most likely habitats for the potential TES species. No TES plants or plants of special concern were observed on these dates or during other site visits throughout the field season.

### ***Wetland and Riparian Areas***

Criteria for jurisdictional wetlands have been developed as a joint effort of the US Army Corps of Engineers, the Natural Resources Conservation Service and the Environmental Protection Agency (US Army Corps, 1987). These criteria require saturation, ponding or flooding during the growing season and the presence of vegetation, soil and hydrology indicators.

One large wetland area (approximately 12 acres) is present on the southwest side of Runt Mountain (**Figure 1-2**). This wetland is a mosaic of woody and herbaceous species. The most common woody species include Engelmann spruce, alder and willow. The most common herbaceous species include cow parsnip, arrowleaf groundsel, false hellebore, monkeyflower, bog orchid, lady fern, bracken fern and a variety of wet site sedges, rushes and grasses. More detailed notes on wetland vegetation are included in the project file.

Other areas that meet wetland criteria in the proposed expansion area are narrow zones (1 to 10 feet wide) along the edge of the perennial stream near Bitterroot Springs and at small seeps immediately above this stream (**Figure 1-2**). These wetlands are dominated by alder, devils club, stinging nettle, bluejoint and arrowleaf groundsel. Small areas of jurisdictional wetland are present along the St. Regis River on the south side of the proposed expansion area, but would not be affected by any action alternative.

A current erosion problem exists where Primitive Road A crosses the 12-acre wetland area on the southwest side of Runt Mountain (**Figure 1-2**). Water draining from the wetland area has been captured by this road and has caused gully erosion up to 12 inches deep. All action alternatives propose a culvert installation and re-grading to eliminate this problem and keep all water within the wetland area.

Riparian areas are sites that receive extra moisture from surface or subsurface sources but are not as wet as the wetlands discussed above. Riparian area definitions and classifications are provided in Hansen and others (1995). Riparian areas in the proposed expansion area are present along the St. Regis River and along the perennial creek near Bitterroot Springs. Very



small areas of riparian vegetation are also present along seasonal drainages immediately above the railroad grade on the north side of Runt Mountain. Overstory vegetation in these riparian areas is dominated by Engelmann spruce, western red cedar and grand fir with a few scattered cottonwood. Understory vegetation includes shrubs such as alder, willow, and red-osier dogwood, grasses such as bluejoint, and forbs such as false hellebore and arrowleaf groundsel.

Work in the wetland area will require notification under section 404 of the Clean Water Act and may require permits issued through the US Army Corps of Engineers. This permitting will be coordinated with similar permit requirements for stream crossings.

### ***Noxious Weeds***

Exotic plants (weeds) invade disturbed sites and replace native plants (Sheley and others 1998). These exotics often are more efficient at extracting moisture and nutrients. They can survive under more harsh conditions than most natives and replace native plants on many sites. Some exotic plants are considered special threats and have been labeled as noxious weeds by the states of Montana and Idaho.

Noxious weeds are present along roads and in the base area. Noxious weeds also occur as scattered individual plants and patches on ski runs. The most common noxious weeds in the LPSRA and proposed expansion area are spotted knapweed, St. Johnswort, common tansy, hound's-tongue and Canada thistle. Spotted knapweed and St. Johnswort are most common along roads, in parking lots and near buildings. These and the other weeds listed above are also common on ski runs. Noxious weed coverage on ski runs generally decreases as elevation and distance from roads increases. All of these weeds are widespread in the surrounding landscape especially along roads and highways approaching Lookout Pass.

A number of other exotic plants (weeds) occur in the proposed expansion area, including woolly mullein, musk thistle, wide-leaf plantain and common dandelion. Exotic grasses such as quackgrass, orchard-grass, Kentucky bluegrass and timothy are also present but are not usually viewed as weeds. These grasses occupy space that could be used by native plants.

Noxious weed management plans and FEIS documents have been completed that cover the LPSRA including the Coeur d'Alene River Ranger District Noxious Weed FEIS and the Lolo National Forest Noxious Weed FEIS. Additional direction on weed management is provided in the REGION 1 SUPPLEMENT NO. 2000-2000-1 NOXIOUS WEED MANAGEMENT.

### **3.3.3 Wildlife**

#### ***Standards***

The standards that provide direction for protection and management of wildlife habitat comes from the following principle sources:

- Endangered Species Act of 1973 (as amended).
- Migratory Bird Executive Order.
- National Forest Management Act of 1976.
- Forest Plan.

Section 7 of the Endangered Species Act directs federal agencies to ensure that actions authorized, funded, or carried out by them are not likely to jeopardize the continued existence of threatened or endangered species or result in destruction or adverse modification of their critical habitat.

An Executive Order of January 10, 2001, describing the Responsibilities of Federal Agencies to Protect Migratory Birds, directs executive departments and agencies to take actions to further implement the Migratory Bird Treaty Act. Section 3 of the Executive Order states that "Each Federal agency taking actions that have, or are likely to have a measurable negative effect on migratory bird populations is directed to implement, within two years, a Memorandum of Understanding (MOU) with Fish and Wildlife Service that shall promote the conservation of migratory bird populations" and each agency shall "ensure that the environmental analysis of Federal actions required by NEPA or other established environmental review processes evaluate effects of actions and agency plans on migratory birds, with emphasis on species of concern".

The analysis of effects to wildlife in this EIS includes analysis of effects of the proposed activities on neotropical (migratory birds). As more information becomes available, the analysis and documentation related to the LPSRA project will be reviewed to determine if a correction, supplement, or revision to the EIS is necessary in compliance with Forest Service Handbook 1909.15 (Chapter 18).

The National Forest Management Act (NFMA) provides for balanced consideration of all resources. It requires the Forest Service to plan for diversity of plant and animal communities. Under its regulations, the Forest Service is to maintain viable populations of existing and desired species, and to maintain and improve habitat for management indicator species.

The Forest Plan, in compliance with the NFMA, establishes Forest-wide management direction, goals, objectives, standards, and guidelines for management and protection of wildlife habitat and species, old-growth habitat, Management Indicator Species, Sensitive Species, and Threatened and Endangered Species.

### ***Methodology***

USDA Forest Service policy (Forest Service Manual 2670.32, page 5) requires a documented review or Biological Assessment of Forest Service programs or activities in sufficient detail to determine how an action may affect Threatened, Endangered, Proposed, or Sensitive species. Consultation with U.S. Fish and Wildlife Service is mandatory if the Biological Assessment concludes that a proposed action may have an effect on federally listed species or habitat.

For each species analyzed in this chapter, the cumulative effects area has been determined based on the species' or guilds' relative home range size in relation to its available habitat, topographic features (watershed boundaries) which relate to how species move and utilize their home range, and boundaries that represent the furthest extent of effects.

The analysis is done at different levels of intensity (for example, from coarse filter to medium filter to fine filter) as appropriate to address the issues and concerns. Some elements of wildlife habitat require detailed analysis to determine potential effects on wildlife species. Other elements may either not be impacted, impacted at a level which does not influence use/occurrence or the decision to be made, or can be adequately addressed through design of the project. These elements do not require in depth analysis. The level of analysis is

dependent on a number of variables including: existing conditions, cause and effect relationships, magnitude or intensity of effects, contrast in effects between alternatives, risks to resources, and information necessary for an informed decision. The analysis is commensurate with the importance of the impact (CEQ 1502.15), the risk associated with the project, the species involved, and the level of knowledge already in hand (USDA Forest Service, 1992, pages 1-19).

The wildlife analysis considered direct, indirect, and cumulative effects. Cumulative effects are defined as impacts to the environment that result from the incremental impact of an action when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes such actions. Cumulative impacts can also result from individually minor but collectively significant actions taking place over a period of time. The relative scope of the cumulative effects analysis has both a temporal and a spatial component.

The USDI Fish and Wildlife Service provided a site-specific list of Threatened and Endangered species that may occur in the project area. The LPSRA analysis area is not a recovery area for any threatened or endangered species. The Fish and Wildlife Service identified one Threatened species (gray wolf) and three Endangered species (grizzly bear, bald eagle, and Canada lynx) that could exist on the analysis area. Gray wolf, bald eagle, and lynx are addressed. There would be no significant effects to the grizzly bear under any alternative; therefore they are not addressed in detail.

In February 2000, a Lynx Conservation Assessment and Strategy was released. The purpose of the document is to provide a consistent and effective approach to conserve lynx and avoid or reduce adverse effects from the range of management activities.

In an effort to address management of lynx, the following protocols are used as the most current information to evaluate effects on lynx habitat and facilitate Section 7 conferencing and consultation with U.S. Fish and Wildlife Service:

- Within each Lynx Analysis Unit (LAU), no more than 30% of lynx habitat can be unsuitable at any time. Management activities will not change more than 15% of lynx habitat into unsuitable condition within a 10-year period.
- Within a LAU, maintain denning habitat on at least 10% of the area that is capable of producing stands with these characteristics. Denning habitat should be well distributed and in patches larger than 5 acres.
- Manage for no net increase in open road miles in lynx habitat. Allow no net increase of regularly used or groomed over-the-snow routes and play routes. Open road densities should be managed to not exceed 2 miles per square mile within the LAU.
- Maintain vegetative structure that facilitates movement of lynx along important connectivity corridors (e.g. riparian areas, saddles, ridges).

It is the intent of this analysis that the information base reflect changes in habitat conditions (such as stand structure), resulting from past, present and reasonably foreseeable actions.

### ***Area of Analysis***

The wildlife analysis area for direct effects is the area within a 1-mile radius of the summit of Runt Mountain since portions of this area would be directly affected by the action alternatives (**Figures 2-1, 2-2, and 2-3**). The indirect and cumulative effects area for wildlife is the St. Joe Divide East Lynx Analysis Unit (LAU) in Idaho and the Lookout LAU in Montana. Information for this section was obtained from existing literature, field visits to the area of direct effect in summer and winter, and discussions with Forest personnel working in the area.

### ***Existing Conditions***

Wildlife habitat in the analysis area consists mostly of subalpine conifer forests dissected by open ski runs vegetated by low shrubs, herbaceous species, and tree seedlings. Clearing of forested areas for ski runs, lifts, parking lots and other facilities has created forest openings, increased human presence and increased access for hunters, hikers, mountain bikers, and others seeking access. The general character of habitat in the developed portion of the ski area is irregular, narrow clearings (ski runs and chair lift corridors) alternating with even-aged, undisturbed conifer forest.

Most wildlife habitat consists of stands of lodgepole pine with open understory canopies dominated by bear grass, grouse whortleberry, and huckleberry. On wet sites, along drainages and around springs and seeps, western red cedar and Engelmann spruce form the forest overstory, and the understory is dominated by devil's club, thin-leaf alder and other wetland species. There are no rocky outcrops, cliffs, or old-growth communities. Snags are fairly numerous, but they are mostly small-diameter (6-8 inch) lodgepole pine.

In Idaho, Lookout Pass (including the ski area) has been designated by the Idaho Panhandle National Forest as a primary conservation area for forest carnivores (lynx, fisher, and wolverine). Both the Idaho and Montana portions of the proposed expansion area and nearby lower slopes are potential movement corridors for forest carnivores and other species.

In addition to the existing LPSRA, other human developments and activities that have affected wildlife habitat in the study area include Interstate Highway 90, and roads and trails used for snowmobiling, four-wheel drive vehicles, cross-country skiers, mountain bikes, and hikers (see **Chapter 3 - Recreation**). The interstate highway has had a substantial effect on wildlife habitat and wildlife movement among habitats to the north and south of the highway. Heavy traffic volumes inhibit wildlife movement and pose a high risk of mortality for animals that move onto the highway.

The interstate highway is especially inhibitory to wildlife movement on the northwest boundary of the study area, where the highway enters the state of Idaho. Because of steep terrain, it was necessary to support the highway on the steep hillside with concrete vertical support structures and retaining walls. These vertical barriers are more than 20 feet high for most of the distance the highway borders the proposed expansion area on the northwest. These physical barriers to wildlife movement and high traffic volumes, which tend to displace wildlife from habitat near the traffic lanes, inhibit movement of wildlife into or out of the study area and have a regional inhibitory effect on wildlife movement.

Common wildlife species in the analysis area are mule deer, white-tailed deer, moose, elk, black bear, red squirrel, snowshoe hare, and coyote. Deer, elk, moose and black bear are spring and fall residents and red squirrel, snowshoe hare, and coyote are year-round residents.

### ***Wildlife Species Considered in this EIS***

Categories of wildlife addressed in this EIS are wildlife with habitats and populations at risk (Threatened, Endangered, and Sensitive) and Management Indicator Species. Habitat conditions such as fragmentation, interior forest, old growth, corridors, and biological diversity are also discussed.

#### **Threatened, Endangered, and Proposed Species**

Direction for managing threatened and endangered species is provided in the Endangered Species Act of 1973 (as amended). As required under the Endangered Species Act, and as documented in the Biological Assessment, the Forest Service must determine if their action (i.e., permitting expansion of the LPSRA) would likely affect listed species.

##### **Gray Wolf (Endangered)**

Gray wolves are residents and transients on the Forests and non-federal lands. Wolves potentially present in the analysis area may include animals that are part of the Central Idaho Nonessential Experimental Population Management Area (i.e., wolves introduced from Canada). In 1994, the U.S. Fish and Wildlife Service determined that wolves south of Interstate 90 should be considered part of the Central Idaho Experimental Population; whereas wolves north of Interstate 90 would receive full protection in accordance with provisions of the Endangered Species Act (IPNF, 1998). LPSRA is south of Interstate 90, therefore, wolves that may use habitat in the study area would be part of the experimental population.

The proposed expansion area does not include optimum wolf habitat. The area accumulates deep snow that displaces big game, the primary prey of wolves, to lower elevations. Consequently, wolves are not addressed in greater detail in this EIS.

##### **Grizzly Bear (Threatened)**

The analysis area is not in the grizzly bear recovery zone and there are no grizzly bears known to be present in the Bitterroot Range. Because grizzly bears would not be affected by the proposed action, they are not considered in greater detail in this EA.

##### **Bald Eagle (Threatened)**

Bald eagles are spring and fall migrants on the Forest, primarily along the St. Regis River, where they prey on fish and waterfowl. There are no known nests or communal roost sites in the analysis or cumulative effects area.

##### **Lynx (Threatened)**

Lynx occur throughout the Rocky Mountains of Montana, primarily in Douglas-fir, spruce-fir, and fir-hemlock forests (Ruediger et al., 2000). In western Montana and northern Idaho, lynx habitat generally occurs at elevations above 4000 feet. Lynx have been documented on National Forest lands within about 2 miles of Lookout Pass, near the Hale Fish Hatchery in Idaho, and several miles away in Montana.

Lynx tend to be solitary animals that use early successional plant communities at high elevations for foraging and mature to old-growth forests with downed trees for denning. The abundance and distribution of lynx are closely linked with snowshoe hares, their main prey (Ruggiero et al., 2000).

In winter, lynx do not appear to hunt in openings, where lack of above-snow cover limits habitat for snowshoe hares (Ruediger et al., 2000). Generally, lynx prefer to forage in forest stands that are from 10 to 30 years old, with a high density of young conifers or branches that protrude above the snow. Older forests with a substantial understory of conifers or shrubs and young trees that provide dense cover that touches the snow in winter also provide good-quality lynx foraging habitat. Large open areas, whether human-caused or natural are usually avoided (Ruggiero et al., 2000). Lynx seem to prefer to move through continuous forest.

As is required by the federal Canada Lynx Conservation Assessment and Strategy (Ruediger et al., 2000), the Forest Service has delineated lynx analysis units (LAUs) for portions of Idaho and Montana that would be affected by the proposed action. LAUs do not depict actual lynx home ranges, but their scale approximates the size an area used by an individual lynx (i.e., 25-50 square miles). Within each LAU foraging habitat, denning habitat, and unsuitable habitat have been identified. Human access, measured by road and trail densities, is also important in analyzing the quality of lynx habitat.

When evaluating lynx habitat associated with ski area, “diurnal security habitat” is also important. In areas where there is extensive recreational development (e.g., large ski areas), most human activities that could displace lynx take place during daylight hours. Consequently, during periods of human activity, diurnal security areas (e.g., patches of heavy vegetation cover and down woody material) may allow lynx to remain near areas of disturbance and resume normal foraging activities at night when human use declines. Diurnal security habitat should be sufficiently large to provide effective and visual insulation from human activity and must be well distributed and in proximity to foraging areas.

Habitat that allows lynx to move within and between LAUs (i.e., connectivity habitat) also is important in evaluating lynx habitat. Lynx often travel along physical features of the landscape such as major ridges, saddles, and riparian areas. When covered with sufficient vegetation, these landscape features provide corridors or connectivity habitat for lynx moving within and between habitats, and for migrating animals.

#### *Foraging habitat for lynx*

Lynx prey mainly on snowshoe hare, and the well being of lynx populations seems to be correlated with snowshoe hare populations. Lynx also prey on ruffed grouse, red squirrels and other rodents, and infrequently deer.

Snowshoe hare population densities reach their peaks in young, dense, moist coniferous forests that provide cover, protection from predators, and browse during all seasons. After stands mature, less light reaches the forest floor and shrubs and small trees become less dense. Mature stands provide less food and cover for hares and their populations decline. During times of hare scarcity, lynx depend on alternate food sources, especially red squirrels. Populations of red squirrels seem highest in mature, closed-canopy forests with large amounts of coarse woody debris and good cone production.

The value of foraging habitats varies based on stand age and structure and changes as stands undergo ecological succession. Some foraging habitat may support high densities of snowshoe hares, whereas other foraging habitat is unproductive hare habitat. Most of the foraging habitat in the proposed expansion area is relatively unproductive. With disturbance from logging or fire, young stands become established and develop through ecological succession into habitat for hares that may remain optimal for 20 or 30 years.

In general, habitat in the proposed expansion area does not appear to be productive lynx foraging habitat, but does provide travel habitat. Most of the area has open stands of lodgepole pine with an open understory of grouse whortleberry, huckleberry, and other low shrubs. During winter, understory shrubs are covered by snow and do not provide hiding cover or forage for snowshoe hares.

Small patches of lynx foraging habitat are present on the northwest side of the analysis area adjacent to springs, seeps, and drainages. On wet sites, alder, devil's club, Rocky Mountain maple, and other shrubs form a moderately dense understory canopy that may provide habitat for snowshoe hares. Winter track surveys in 2000, however, did not detect a high density of snowshoe hare tracks (i.e., two sets of tracks were observed during winter surveys of the proposed expansion area).

#### *Denning habitat for lynx*

Maternal denning habitat is usually limited throughout the range of lynx. Large amounts of large coarse woody debris provide escape and thermal cover for kittens. During the first few months of life, kittens are left alone while the female lynx hunts. Downed logs and overhead cover provides protection of kittens from predators, such as owls, hawks, and other predators. This habitat structure must be available in lynx home range, because kittens continue to require protective cover when they are old enough to travel.

Maternal denning habitat does not appear to be present in the analysis area. There are no old-growth stands and there is little downed, large woody debris that could provide denning habitat and cover for lynx kittens.

#### *Unsuitable habitat for lynx*

Unsuitable habitat consists of open areas that at some time could support lynx habitat, but currently does not. These areas do not support much above-snow vegetation or contain vegetation that is too widely spaced to provide connectivity habitat. In winter, lynx tend to either not use or to avoid these areas, and in winter these areas tend to hold few if any snowshoe hares.

According to criteria presented in the Canada Lynx Conservation Assessment and Strategy (Ruediger et al., 2000), each LAU must have no more than 30% unsuitable habitat. If a LAU has more than 30% unsuitable habitat, no further reductions in lynx habitat shall occur. Currently, the St. Joe Divide East LAU in Idaho has 102 acres of unsuitable habitat, comprising 1.3% of the capable habitat within the LAU. The Lookout LAU in Montana has 590 acres of unsuitable habitat, comprising 2.3% of the capable habitat within the LAU.

#### *Diurnal security habitat for lynx*

In areas where there is extensive recreational development (e.g., large ski areas), human activities that could displace lynx usually are concentrated during daylight hours. Consequently, during periods of human activity, lynx are usually displaced from habitat near high levels of disturbance. To avoid periods of high human activity, lynx often seek nearby areas with dense vegetation and down woody material and little human activity to forage and rest. These adjacent areas of secure habitat are diurnal security areas that may allow lynx to remain near areas of disturbance and resume normal foraging activities at night when human use declines. Diurnal security habitat should be sufficiently large to provide effective sound and visual insulation from human activity and must be well distributed and in proximity to foraging areas.

Patches of timber that have the potential to provide diurnal security habitat for lynx exist on the north slopes of Runt Mountain, along the drainages associated with Bitterroot Springs. Patches of alder and devil's club along the drainages, with a coniferous forest overstory have the potential to provide diurnal security habitat for lynx. Currently, this habitat does not appear to be used by lynx for diurnal security. Winter track surveys by Land & Water biologists did not observe the presence of lynx. Low densities of snowshoe hares and limited snowshoe hare habitat on the existing ski area and proposed expansion area reduce the potential of the north slopes of Runt Mountain and Bitterroot Spring complex to provide diurnal security habitat.

#### *Connectivity habitat for lynx*

The Lookout Pass area and adjacent ridges are natural movement corridors for lynx and other forest carnivores. The value of this movement corridor for lynx has been substantially compromised by construction of Interstate 90 over the Pass. High levels of traffic, vertical retaining walls, and steep rocky cut slopes create a major barrier to movement on a north-south axis. The existing ski area and road and trail system also reduces connectivity along the north-south axis on the ridge that includes Lookout Pass and Runt Mountain. Because of the interstate highway with its vertical retaining walls and the existing ski area, the most likely area for lynx and other wildlife movement, along a north-south axis is between the ski area and Taft, Montana.

#### *Human access and lynx*

Though not limited to roadless areas, lynx may be affected by human access into their habitat, especially during winter and the denning season. The extent and magnitude of disturbance that affects lynx is not known, but lynx do not appear to avoid roads. Although lynx may not avoid roads, roads can negatively affect lynx by allowing human disturbance in denning habitat and increasing access for hunting and trapping. Plowing or packing snow on roads and trails might allow competing carnivores to more readily enter lynx habitat thus increasing competition for prey.

Currently, there are numerous roads and trails that allow access to the study area and surrounding habitat during both summer and winter (**Figure 1-2**). Groomed and packed snowmobile and cross-country ski trails surround the ski area.

#### **Sensitive Species**

Sensitive wildlife species are identified by the Regional Forester for which population viability may be a concern as evidenced by:

- 1) Notable current or predicted downward trends in population numbers or density.



- 2) Notable current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

Sensitive species for which suitable habitat appears to be present in the analysis area are listed in **Table 3-4** and addressed in the following section. **Table 3-4** and the discussion includes species that are known or have the potential to occur in Montana on the Superior Ranger District or in Idaho on the Coeur d'Alene River Ranger District.

**Table 3-4: Sensitive Species That May Be Present on the Superior and Coeur d'Alene Ranger Districts**

Common Name	Scientific Name	Presence
Coeur d'Alene salamander	<i>Plethodon vandykei idahoensis</i>	Likely
Harlequin duck	<i>Histrionicus histrionicus</i>	Known until recently
Northern goshawk	<i>Accipiter gentilis</i>	Known
Black-backed woodpecker	<i>Picoides arcticus</i>	Known
Flammulated owl	<i>Otus flammeolus</i>	Known
Townsend's big-eared bat	<i>Plecotus townsendii</i>	Known
Fisher	<i>Martes pennanti</i>	Known
Wolverine	<i>Gulo gulo</i>	Known
Northern bog lemming	<i>Synaptomys borealis</i>	Not likely
Boreal toad	<i>Bufo boreas boreas</i>	Likely
Northern leopard frog	<i>Rana pipens</i>	Likely
Peregrine falcon	<i>Falco peregrinus</i>	Not likely
Common loon	<i>Gavia immer</i>	Not likely

#### Coeur d'Alene Salamander

Coeur d'Alene salamanders occur only in northern Idaho and northwestern Montana. Habitat for this species is limited to moist habitats such as springs and waterfalls, with deep cracks in rocks. These salamanders appear to favor moss mats or rock fragments for daytime refuge and hibernate underground in rock fractures or under large boulders. There is little suitable habitat for Coeur d'Alene salamanders in the study area. Habitat that appears to be suitable for this species is present in the vicinity of Bitterroot Springs (**Figure 1-2**) and along the steep drainage from which the springs discharge. The densely vegetated Bitterroot Springs and associated drainages have extensive dense moss layers and at some sites flow over exposed fractured bedrock.

#### Harlequin Duck

Harlequin ducks are one of the rarest species on the Lolo and Idaho Panhandle National Forests. They nest along isolated mountain streams and winter along the Pacific coast. Most harlequin ducks, especially females, return to the same breeding streams year after year. There is no suitable habitat for harlequin ducks in the proposed expansion area, therefore, this species will not be analyzed further.

#### Northern Goshawk

The goshawk is a large, forest hawk that occurs in Idaho and Montana year-round, but is more commonly observed in summer. The goshawk is a MIS because it is an indicator of mature and old-growth habitats characterized by a dense overstory of large trees and an open understory. They feed primarily on birds and small mammals. Nesting habitat usually includes gentle topography with northern aspects and dense stands of large-diameter trees. Foraging habitat includes a variety of forest successional stages, often with open understories.

Goshawks could nest throughout the analysis area, however, habitat does not appear to be optimal for nesting. Most of the study area is dominated by lodgepole pine, 6-12 inches in diameter and does not include large blocks of mature forest (nesting habitat) nor especially good foraging areas (mature forest communities with open understories and abundant prey). The proposed expansion area has relatively open understories, but it does not produce abundant prey populations (e.g., passerine birds, corvids, and pine squirrels). There have been no goshawks reported for the study area and pedestrian surveys in June and July, 2000 by Land & Water biologists.

*Black-backed Woodpecker*

Black-backed woodpeckers have not been documented in the analysis area. This species is often associated with burned stands of mature forest but also occurs in forest communities containing decadent, diseased, or insect-infested trees. It forages on abundant bark insects found in recent burns and nests in cavities that it excavates in trees. There are no relatively recent burns in the analysis area that would provide foraging and nesting habitat for black-backed woodpecker. In some areas, whitebark pine mortality for blister rust may attract black-backed woodpeckers seeking abundant insects.

*Flammulated Owl*

This small, migratory owl nests in cavities of living trees and snags. It is strongly associated with ponderosa pine forests. The proposed expansion area is at higher elevation than the typical habitat for the flammulated owl and the habitat is marginal.

*Townsend's Big-eared Bat*

This species occurs in a variety of habitats, from arid juniper and pine forests to high-elevation mixed conifer forests. This bat has not been documented in the proposed expansion area, but may occur. Management direction involves identifying and protecting caves and abandoned mines. Abandoned mines and caves are used for winter hibernation and summer nursery colonies. In summer, males and non-reproductive females usually roost in snags. There are no mine adits or caves in the LPSRA area of direct-effects analysis.

*Fisher*

The fisher may be present occasionally in the analysis area and are infrequently present in adjacent suitable habitats. Optimal habitat for fishers appears to be moist coniferous forest and riparian areas that do not accumulate large amounts of snow. Fisher prefer mature forest with relatively closed canopies, but also use edges and wetlands. If fishers are present in the proposed expansion area, the portion of the area that they inhabit would be a small part of their home range.

Fisher have been reported several miles to the west of Lookout Pass in Idaho, at lower elevations along the South Fork Coeur d'Alene River. There are 21 records of fisher from Hunting District 202 in Montana. These occurrences have been recorded since 1983 and do not include specific site locations.

*Wolverine*

Wolverines may sporadically occur in the analysis area. There have been confirmed sightings in the Bitterroot Range of Montana and Idaho. Typically, wolverines are associated with backcountry or wilderness but are known to cross areas of human habitation (usually at night). They are wide-ranging species with large home ranges. They are scavengers and effective predators, taking a variety of foods. Habitat requirements appear to be “large isolated tracts of wilderness supporting a diverse prey base, rather than specific plant associations or topography” (Butts 1992). Wolverine denning sites are often associated with high elevation alpine cirques and talus fields.

Wolverines may inhabit portions of the proposed expansion area; however, because they have large home ranges (as large as 130-168 square miles), only a portion of a wolverine’s home range would include the proposed expansion area.

#### *Northern Bog Lemming*

This small rodent usually occurs in bogs and fens, but is occasionally found in other habitat such as mossy forests. Bog lemmings may occur in suitable habitats on the Lolo and Idaho Panhandle National Forests, but limited surveys have not documented their presence. The proposed expansion area does not contain suitable habitat.

#### *Boreal Toad*

This species frequents a wide variety of habitats from grasslands and forests, to subalpine areas in mountains. It breeds in ponds and other calm water bodies. This species may occur in the vicinity of the proposed action, but little is known about its distribution locally. No boreal toads were observed during field surveys conducted by Land & Water biologists.

#### *Northern Leopard Frog*

This species may occur in the vicinity of the proposed action, but little is known about their distribution locally. The study area may contain suitable habitat at Bitterroot Springs, however, no leopard frogs were observed during field surveys conducted by Land & Water biologists.

#### *Peregrine Falcon*

Peregrine falcons may be seasonal transients but there are no suitable nest sites (high cliffs) in the analysis area. Although peregrines may be seasonal migrants, the prey base (mostly corvids and passerine birds during nesting and brood-rearing periods) and scarcity of nesting sites renders both the analysis and cumulative effects areas marginal for breeding peregrines.

#### *Common Loon*

Common loons breed on lakes in western Montana and northern Idaho. There are no suitable breeding sites on the Coeur d’Alene or Superior Ranger Districts.

#### **Management Indicator Species**

The Forest Plan identifies “Management Indicator Species” that are used to judge effects of land management activities on various habitats. Management Indicator Species (MIS) include species commonly hunted and trapped which have special management needs that are affected by forest management and other species whose population changes are believed to indicate

effects of management activities on a major biological group. MIS species that may be affected by the proposed action include northern goshawk, elk, American marten, and pileated woodpecker. The northern goshawk is also a sensitive species and is discussed in the previous section.

#### Pileated Woodpecker

The pileated woodpecker is an indicator of old growth or late successional ponderosa pine and Douglas-fir forests. They are year-round residents and nest in forests with large-diameter (at least 20 inches diameter) dead or defective trees. Other cavity-dwelling birds and mammals often use cavities created by pileated woodpeckers. Pileated woodpeckers may be year-round residents in the analysis area; however, habitat for nesting and foraging does not appear to be present for nesting or optimal for foraging.

#### American Marten

Like the goshawk, the marten was selected as a MIS because of its affinity for mature and old-growth forest communities, with an abundance of down, woody materials. The American marten is usually associated with late-successional stands of spruce and Douglas-fir. Martens require large snags, stumps, and logs for resting sites and natal dens. Their diet includes voles, mice, squirrels, hares, birds, berries, and fruit.

The average home range of martens is about 3 square mile (1,920 acres). For each home range, it is believed that there must be approximately 500 acres of feeding habitat and 500 acres of denning habitat to maintain viable populations.

The relative scarcity of large, downed woody material, late-successional forest, and sparse prey base (e.g., red squirrels) indicate sub-optimal habitat for marten. The best marten habitat is on lower slopes of the existing ski area and on relatively flat areas south and west of the ski area where large spruce are present along drainages. Winter track surveys of the study area in March 2000 did not detect marten.

#### Elk

Healthy populations of elk (and other hunted species) are a priority for the Forest Service and state wildlife management agencies in Montana and Idaho. Various studies have shown that timber harvest, roads, and prescribed fire can affect elk habitat, behavior, and hunting mortality.

The Idaho Panhandle National Forest Plan (1987a) states that: "*Elk habitat will be managed to provide for potential population increase in striving to meet Idaho Fish and Game population goals. Management for habitat needs will emphasize road management to maintain adequate security and habitat for potential summer range*".

Elk utilize a range of habitats, however, their preferred summer habitat is forested habitat interspersed with openings, such as meadows or clearcuts where they forage. Elk tend to avoid roads open to regular traffic

Winter range is extremely important in maintaining viable elk populations. Factors that affect quality of winter range include forage quantity and quality, thermal cover, roads and other disturbances, and livestock management. In Idaho, low elevation brush fields are important winter range. In Montana, open, south-facing slopes with bunch grasses provide winter habitat.

Elk are a common species in the study area during summer. They often forage on open ski runs and seek thermal and hiding cover in forested areas. In fall, during hunting season, elk are quickly displaced from the study area. The high density of roads and trails in and near the study area allow hunters relatively easy access, thereby rendering elk vulnerable to hunting mortality.

The Idaho Department of Fish and Game conducted four elk winter surveys, between 1966 and 1987, which included the analysis area. No elk were observed within four miles of the ski area. The absence of elk in winter is because the analysis area receives large amounts of snow, often more 100 inches per year. Due to heavy winter snowfall, elk do not frequent the analysis area until early summer when the snow melts and the vegetation starts to green up. Elk do not calve in the analysis area because it has snow cover and vegetation is dormant at the time of calving (late may and early June). The IPNF Forest Plan does not identify the analysis area as being high-quality elk summer habitat, nor is it adjacent to high-quality summer habitat.

#### Mule Deer

Mule deer are common throughout the analysis area and are present in spring and fall in vicinity of the ski area. Following fall and winter snowfall, mule deer move to lower elevation winter ranges.

Mule deer occupy a variety of habitats including forest, grassland openings, and wetlands. In recent years, mule deer numbers have declined in the region. Factors affecting mule deer populations may include reduced browse availability and quality, fire exclusion that has resulted in less browse (i.e., shrubs), and increased predation by mountain lions.

Hunter management and road access are two of the primary considerations in managing for mule deer. If habitat and security needs are met for elk, it is likely that healthy populations of mule deer will also result.

#### Neotropical Migrants

Neotropical migrants are landbirds that breed in North America and winter in neotropical countries. Many forest-dwelling neotropical migrants have experienced population declines from forest fragmentation on breeding grounds, deforestation of wintering habitat, pesticide poisoning, and cumulative effects of habitat changes (Finch 1991). Another threat to these birds is nest parasitism by cowbirds. Populations of brown-headed cowbirds have expanded in the West. Openings in forest canopies (e.g., clearcuts and ski runs) often allow cowbirds to colonize forest areas and parasitize other bird's nests.

Neotropical migrants that may breed in the analysis area include: calliope hummingbird, rufous hummingbird, red-naped sapsucker, Williamson's sapsucker, ruby-crowned kinglet, Swainson's thrush, American robin, cedar waxwing, Townsend's warbler, western tanager, and chipping sparrow. These species nest in trees and shrubs in conifer forests. Some construct nests in branches of trees and shrubs while others (i.e., sapsuckers) occupy cavities in snags and larger trees.

## 3.4 HUMAN ENVIRONMENT

### 3.4.1 Heritage Resources

#### ***Standards***

The Idaho Panhandle Forest Plan (IPNF, 1987a) states as a goal that the Forest will "*Manage cultural resources on the Forest to maintain their scientific, social, and historical values.*" In addition, Forest Plan standards state that:

- *"The Forests' cultural and historic resources will be identified, protected, interpreted, and managed.*
- *Project areas will be inventoried and evaluated prior to management activity.*
- *State and federal agencies and Indian tribes will be consulted about cultural resource activities and projects within their interest.*
- *Specific management direction which incorporate interpretation will be completed for the National Register of Historic Places."*

The Lolo National Forest Plan (LNF, 1986a) established similar standards as the IPNF Plan. The last standard listed above is related to implementation of the National Historic Preservation Act and coordination with the State Historic Preservation Offices in Montana and Idaho. After cultural inventories, appropriate sites are nominated to the National Register of Historic Places. In compliance with the Forest Plans, a cultural resource survey and evaluation for the NRHP would be required for all areas of ground disturbance related to the action alternatives. Consultation would also occur with the State Historic Preservation Offices. Any cultural sites found during a pre-construction cultural survey or during construction would be preserved or mitigated.

#### ***Area of Analysis***

The area analyzed for heritage resources includes all lands that may be impacted by the proposed action and any of the alternatives being considered. The "area of potential effect" includes areas where direct impacts would occur, such as areas to receive ground disturbance through road construction, building construction, and contouring ski runs. It also includes areas where expansion activities may have an indirect (visual or auditory) or cumulative effect on cultural resources or their setting, such as the harvesting of timber within the view-shed of an historic structure.

The analysis for cultural resources included:

- Review of reports of previous projects that are adjacent to the current expansion area.
- Review of pertinent portions of reports from the same township.
- Knowledge of the cultural history of the area, previous ethnographic and/or archaeological work, and the topographic and environmental features of the area as related to known patterns of prehistoric use.
- Examination of the area by wildlife, hydrology, and vegetation resource specialists reporting to the cultural resource specialist.

Background cultural information was available in prehistoric and historic overviews of the IPNF and LNF, cultural resource files of the IPNF and LNF, the National Register of Historic Places,

historic maps, ethnographic literature, and topographic maps. With this knowledge, the specialist was able to estimate prehistoric and historic site distribution.

A review of cultural features in the proposed expansion area was conducted by the Idaho Panhandle National Forest cultural specialist. The review indicated that two historic resources are on the National Register of Historic Places in the area of potential effect: the Mullan Trail and the Northern Pacific Railroad grade (**Table 3-5**). The Mullan Trail crosses St. Regis Pass west of the existing ski area. The trail was altered by road-building on the north side of Runt Mountain sometime in the last 40 years. The road building was probably related to mine exploration and trenching on Runt Mountain.

The Northern Pacific Railroad grade was abandoned and the tracks and ties have been removed. The abandoned railroad grade is now known as Forest System Roads 4208 and 3026 (**Figure 1-2**). These roads are open to wheeled motorized use in the summer. Snowmobiles and cross-country skiers use the abandoned railroad grade in the winter (see **Chapter 3- Recreation**). The railroad grade has been impacted by various cultural features, including Interstate 90, the I-90 frontage road, and a BPA transmission line. The lodge at Lookout Pass was recommended for the Register in 1987 but not accepted.

**Table 3-5: Heritage Sites**

Site Number	Site Description	Historic Theme	National Register Eligibility/Year of Finding
87-IP-1-3	Lodge – Lookout Pass Ski and Recreation Area	Community Development	1987; Recommended but not accepted
24MN120	Coeur d'Alene Branch, Northern Pacific Railroad	Historic Transportation	1999
24MN133	Mullan Trail	Historic Transportation	1985

### ***History and Existing Conditions***

The proposed expansion area is in the Northern Rocky Mountain cultural region of western Montana and northern Idaho. A general chronology of the region is provided in the Lolo National Forest Prehistoric Overview (McLeod and Melton, 1986).

Human occupations in the region are documented as early as from 10,000 to 11,000 years or more Before the Present (BP). There is evidence of continuous use from this period up until contact with Europeans. Prior to introduction of the horse in the 1700s, the archaeological record of the area indicates extensive influence by Columbia Plateau people. Small bands of hunters and gatherers joined together and lived in the river valleys during the late fall and early spring. In the summer and winter, the bands would disperse and smaller groups would move to other areas to harvest various resources as they became available. With the introduction of the horse in the 1700s, mobility patterns changed, which in turn changed patterns of subsistence and material culture. Plains people and bison hunting became major influences on the area inhabitants.

According to McLeod and Melton (1986), the region was the traditional home of the Pend d'Oreille and Coeur d'Alene tribes. The region was also used by the Kootenai, Flathead, and Blackfoot. Lookout Pass was a travel route for various Indian tribes, which primarily occupied valleys and river bottoms. Mountainous areas were used for hunting and other cultural pursuits. The Bitterroot Mountains were traversed in search of game, especially the buffalo of the Great Plains. Evidence of early historic use or occupation in the region is rare, especially with any distance from the major occupation or travel routes.

The Lewis and Clark Expedition made the first substantiated contact of Euro-Americans with Indian groups in the region in 1805. In addition to explorers, the earliest Euro-Americans in the area were primarily trappers and traders who were followed by missionaries and members of the United States military. Movement of these early non-Natives was along Native trails that tended to follow major rivers and crossed mountains through accessible passes. Captain John Mullan and his crew completed a military road in 1862 across St. Regis Pass, about one mile west of Lookout Pass. This military road allowed access through the Silver Valley and was utilized by gold seekers venturing between the Palouse, British Columbia and Montana during the 1870's.

The U.S. Army maintained a telegraph line along the military road between Ft. Sherman in Coeur d'Alene, Idaho and Ft. Missoula through the late 1870's. By the mid-1880's silver/lead deposits were discovered in the Silver Valley, which lead to miners prospecting and establishing mining camps and towns throughout the area. The past exploration and prospecting attempts by miners can be found scattered across the landscape, usually as open surface features such as discovery cuts, prospect pits and trenches. Work of this type was a chance that a mineral apex would be located, a sulfide lead explored or quartz vein followed to untapped mineral wealth.

Mining and exploration in the region is not as active as in the past, but several mines are currently operating in the Mullan and Wallace area. According to BLM files (see **Chapter 3 - Geology**), numerous unpatented mining claims have been filed in the proposed expansion area, some as late as the 1980s. However, all of the claims were closed or abandoned by the late 1990s. Several claims were explored using long trenches excavated with bulldozers in the soil and rock of Runt Mountain, leaving large scars on the landscape. One ski run on the south side of the existing ski area follows an old exploration trench. Other potential mining-related features in the region include exploration pits, adits, shafts, waste rock piles, cabins, flumes, and platforms for buildings or tents.

From the 1880s into the early 1900s, railroads began constructing extensive lines across Montana and Idaho, including some across the Bitterroot Mountains. In 1891, the "Montana Divide" portion of the Northern Pacific Railroad was completed over Lookout Pass. The Hiawatha Trail, located about 6 miles southeast of Lookout Pass, was completed by Chicago, Milwaukee and St. Paul Railroad in the early 1900s. The railroads helped bring equipment and supplies to mining areas, as well as haul processed minerals beyond the region.

Mining, ore processing, and railroads all required large quantities of timber for construction use and fuel. Prior to and proceeding the great fire of 1910, the Federal Mining Co. logged the slopes of Runt Mountain through the use of horse skid trails and earthen chutes that were employed in winter logging chances as frozen extraction ways. Logging continues today in the nearby area, although no recent logging has been conducted in the proposed expansion area. The huge fires of 1910 burned much of the nearby vegetation, creating a forest where most trees are less than 90 years old. Logging-related cultural features, if present, would include skid trails, charcoal pits, cordwood piles, cabins, and chutes for the transport of logs.

Downhill skiers have frequented the day-use ski area at Lookout Pass since 1938. The base lodge at Lookout is the second-oldest ski lodge in the Pacific Northwest. The lodge was built in 1941 by members of the Civilian Conservation Corps for the Idaho Ski Club, a volunteer organization with members from Kellogg, Wallace, and Mullan, Idaho.



Properties related to skiing, mining, logging, local trails, and railroads are the types of cultural sites most likely to be located in or near the proposed expansion area.

### 3.4.2 Recreation

#### **Standards**

The Idaho Panhandle National Forest Plan (IPNF, 1987a) and Lolo National Forest Plan (LNF, 1986a) established Forest-wide multiple use goals, objectives, and Management Area prescriptions and standards. The Lolo Forest Plan provides some general recreation goals and standards, and states that *“The Forest will not significantly expand the capacity of developed recreation sites on the LNF during the next 10-year period. Emphasis will be placed on increasing the use of existing sites by making them usable by a wide segment of society including the elderly and handicapped...”*.

The IPNF Forest Plan also provides some general recreation goals and standards. One of the standards states that: *“The current level of developed recreation facilities and opportunities will be increased. The increase will be obtained by expansion of existing sites and development of new recreation sites as the budget allows. Facilities in dispersed areas will be minor and limited to resource protection user comfort, and safety. A diversity of development levels based on specific area objectives will be provided”*.

The Forest Plans placed LPSRA and the proposed expansion area in four different Management Areas (MA). The Management Area goals and standards for recreation and roads are discussed below and summarized in **Table 3-6**.

**Table 3-6: Key Management Area Goals and Standards Regarding the Proposed Action**

Management Areas	Developed Recreation Emphasis	Dispersed Recreation Emphasis	Roads Allowed (to Site Design Standards)
MA-1		X	X
MA-17 (existing ski area)	X		X
MA-8 (existing ski area)	X		X
MA-9	X <sup>1</sup>	X	X

X<sup>1</sup> - Expansion of Lookout Pass ski area allowed if environmental analysis shows it to be in the public interest.

#### Idaho Panhandle National Forest

Alternative B would be located in MA 1 and 17, whereas Alternatives C and D would be located only in MA 17 of the IPNF Forest Plan (1987a) (**Figure 1-4**). The Forest Plan states that MA 1 recreation standards are to be "roaded modified and roaded natural" Recreation Opportunity Spectrum (ROS) classes. In addition, the Plan will "maintain a diversity of recreation opportunities" and "provide opportunities for dispersed recreation" in MA 1.

Management goals in the IPNF Forest Plan (1987a) for MA 17 state that the area is to be managed for developed recreation opportunities in a "roaded natural and rural recreation setting". MA 17 is to be managed to "protect and enhance a natural appearing environment and the opportunities for social interchange between users". In addition, the Plan states that MA 17 will be managed to:

- *“Emphasize a moderate to high frequency of facilities, Development Levels 3-5, with handicapped facilities. Priority will be given to public facilities over individual occupancy.*

- *Enhance interpretation of eligible cultural sites on theme basis.*
- *Develop minor interpretive site to Level 3. Emphasize on-site personal contacts with some off-site interpretation.*
- *Commercial facilities and private recreation residences will be visually compatible with the natural character of the site. Private sector development will be encouraged in cooperation and coordination with public developments and programs.*
- *Trails will be managed for a diversity of non-motorized users. Most trails should be handicap accessible."*

#### Lolo National Forest

The proposed expansion area on the Montana side of Runt Mountain would be located in Management Area 8 and 9 of the Lolo National Forest Plan (1987a). Management goals in the LNF Forest Plan (1987a) for MA 8 state that the Forest Service is to "provide opportunities for developed facilities to accommodate downhill skiing". The Forest Plan standards state that:

- *"Ski areas will be managed using stipulations contained in the special-use permit. Management plans will be developed for each area according to the Forest Service Manual. Public services offered outside the normal operating season must be authorized by a special use permit.*
- *Areas under special-use permit will not be expanded unless a clear public need exists and an environmental analysis supports the expansion."*

Management goals in the Forest Plan for MA 9 state that the Forest Service is to:

- *"Provide for a wide variety of dispersed recreation opportunities in a forest setting available to a wide segment of society;*
- *Provide for management of other resources in a manner consistent with recreation objectives; and*
- *Provide for acceptable levels of water quality and fisheries habitat and improve opportunities for dispersed recreation."*

The Forest Plan standards for MA 9 state that:

- *"Livestock grazing may be permitted to the extent it does not conflict with recreation values.*
- *Wildlife and fish habitat improvement projects are compatible. Such projects will strive to increase opportunities to view wildlife and, where permitted, to hunt and fish.*
- *Expansion of the Lookout Ski Area into this Management Area may be permitted, if the results of an environmental analysis indicates that such an expansion is in the public interest.*
- *Road access will be provided to meet recreation objectives. Trails may be constructed to provide for a variety of recreation activities and experiences.*
- *Recreation area direction will be developed to identify improvements necessary to accommodate dispersed recreation, minimize user conflicts, and provide for acceptable levels of public safety and sanitation. Examples are natural interpretive trails; facilities for the elderly and handicapped; winter sports trails; stock handling facilities; scenic vistas and turnouts; trail bike and snowmobile trails. Any recreational area plan developed will be incorporated into the Forest Plan as an amendment.*
- *The Forest recreation specialist will be consulted about mitigation measures to protect the values associated with trails on the Forest classified under the National Trails System Act."*

The IPNF completed an “Access Management Environmental Assessment” for the Coeur d’Alene River Ranger District (IPNF, 1998). The EA evaluated eight access management areas within the District. The importance of motorized recreation in the Forest was acknowledged in the document. The EA recommended that some gated roads would be opened and some unmaintained roads would be reconstructed and maintained. In addition, some off-road snowmobile use would be permitted in addition to groomed snowmobile routes.

### ***Area Of Analysis***

The recreation analysis area for direct effects is the area within one mile of the summit of Runt Mountain. Portions of this area would be directly affected by the action alternatives (**Figures 2-1, 2-2 and 2-3**). The indirect area of analysis is within a 6-mile radius of the ski area which includes the nearest town, Mullan. The cumulative effects area includes Shoshone County, Idaho, Mineral County, Montana, and other family-oriented day-use ski areas accessible from Missoula Montana, Coeur d’Alene Idaho, and Spokane Washington. Recreation resources were evaluated using a combination of site visits, literature research, and interviews with recreation specialists at the Idaho Panhandle and Lolo National Forests.

### ***Existing Conditions***

#### ***Directly Affected Area***

The LPSRA currently operates in the winter and summer on the east side of Runt Mountain (**Figure 1-2**). Facilities include one chairlift, one rope tow, a base lodge, rental shop, maintenance and service buildings, and a parking lot. Winter activities include alpine (downhill) and nordic (cross-country) skiing, snowmobile trail parking, ski rental service, ski school, and operation of the lodge restaurant and bar. Summer activities include operation of the base lodge restaurant and bar, gift shop, information center, and bicycle rental and shuttle service. The lodge restaurant and bar is open each day of the summer season, and also rented for meetings, weddings, and parties. Existing facilities at the ski area are further described in **Chapter 1- Background**.

The proposed action would affect both the north and south sides of Runt Mountain, a peak of the Bitterroot Range that is 5532 feet in elevation. The area directly affected by the proposed action has not been logged recently, there has been no livestock grazing, and no developed recreation facilities have been constructed.

Dispersed recreation is very popular in the area, including snowmobiling, all-terrain vehicle (ATV)<sup>1</sup> use, cross-country skiing, backcountry (telemark) skiing, wildlife watching, and hunting for deer and elk. The amount of dispersed recreation use has never been monitored. Snowmobiling, cross-country skiing, and backcountry skiing is accessed from the LPSRA parking lot. Some backcountry skiers use the top of the ski area to access the St. Regis Basin and Bitterroot divide. There are numerous primitive trails and roads that are used by snowmobiles, ATVs, hikers, and horses. The most popular trail is the abandoned railroad grade that crosses Lookout Pass and is linked to other popular trails near the Bitterroot Divide and State line.

There are no developed camping or picnicking facilities within the proposed expansion area. There is little opportunity for wildlife and bird watching on the north side of Runt Mountain

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<sup>1</sup> ATV in this document includes motorcycles, 3-wheelers, and 4-wheelers

because of the thick lodgepole forest. More hiking and wildlife watching opportunities exist on the south side of the mountain, which has more open forest glades.

LPSRA has been classified as a Class C avalanche site, which means there is a low probability of avalanche hazard (LRI, 1996). No known avalanches have occurred within the ski area boundary or the proposed ski area boundary. Known avalanche areas in the St. Regis Basin are west of the proposed expansion area.

#### Area of Indirect Effects

The area of indirect effect includes the recreation resources within 6 miles of LPSRA. This portion of the Bitterroot Range is popular for both developed and dispersed recreation activities in summer and winter.

The area near the ski area affords year-round recreational opportunities that include fishing, sight-seeing, hiking, mountain biking, snowmobiling, cross-country skiing, motorized riding, camping and picnicking. There are a number of businesses in Montana and Idaho that depend on this dispersed recreational use for their livelihood, including restaurants, motels, stores, snowmobile rentals, bars and campgrounds. The summer and fall season generally extends from Memorial Day weekend to October 31. The winter season generally extends from mid-November to mid-April.

Overnight visitors to LPSRA currently have a limited choice for lodging. No overnight services are currently offered at the ski area in the winter. RVs are allowed to park at the ski area parking lot overnight during the summer.

The nearest overnight lodging to the ski area is located at Mullan, Idaho, about 6 miles west of the ski area. Other communities with lodging are De Borgia, Haugan, and Saltese Montana and Wallace, Idaho. Mullan, Idaho has "The Lookout Motel" and Wallace has 6 motels. De Borgia has the "Black Diamond Guest Camp and Ranch" and "Albertson B&B". The "Silver Inn" is located in Haugan, Montana, and there is a small motel in Saltese, Montana.

The following paragraphs describe the recreation activities in the area of indirect effects:

#### Forest Roads

A high density of roads are on Forest lands in the region near the ski area. Most of the roads were created for mineral exploration and development. The roads are popular travel ways for automobiles, ATVs, motorbikes, four-wheel-drive vehicles and mountain bikes. The "Silver Country" web-site boasts that Wallace, Idaho is the "ATV Capital of the World", with over 1000 miles of ATV trails. The annual "Jeep Jamboree", sponsored by Chrysler Corp., attracts 4-wheel drive users from all over the country. The event is centered at Shoshone Park and the Hale Fish Hatchery. Travel routes are provided under a Forest Service Special Use Permit over St. Regis Pass, Boulder Creek, and over the North Fork Divide (**Figure 1-1**). The Jamboree takes place on either the first or second weekend in August and lasts two full days. The average number of jeep vehicles that run the three trails is 41. Each event teaches methods to minimize vehicle impacts and has received the Forest Service "National Tread Lightly Award".

There are numerous National Forest roads adjacent to the existing and proposed ski area: F.S. 9127, 4208, 7896, 18591, 3026, 3026a and 3026b (**Figure 1-2**). Several primitive roads are also located near the ski area (Primitive Roads A and B, Primitive Trail A and other unnamed

roads and 4-wheel drive trails). Forest road 9127, east of Lookout Pass, extends to the top of Beacon Mountain on the Montana/Idaho divide where some communication sites are located. Three other Forest roads traverse below road 9127 on the south side of Beacon Mountain. Several Forest roads border the St. Regis River south of the ski area. Forest roads 4208 and 3026 are the Montana and Idaho portions of the abandoned railroad grade extending over Lookout Pass. Forest road 18591 extends west of the railroad grade toward the St. Regis Basin. Forest Road 7896 is the former Highway 10 West located east of the railroad grade. Forest Road 3026a, which extends from the base of Lookout Pass to the top of Runt Mountain, is open to motorized use in the summer. LPSRA has submitted a proposal to close this road for general public use.

Most of the other nearby roads have been open to motorized use in the summer, except some of the primitive roads along ski runs at the existing ski area. In 2001, the IPNF and LNF closed all non-Forest system roads and trails in **Figure 1-2** to wheeled motorized use. Under this Forest Service order, all Forest system roads and trails near the ski area without a FS designation will be closed to wheeled motorized use.

### Trails

Numerous primitive trails and unmaintained roads are located within 6 miles of the ski area (**Figure 1-2**). Many of the primitive roads and trails are open to motorized use (see snowmobile discussion below). Non-motorized use includes mountain biking, hiking, horseback riding, hunting, wildlife watching, picnicking, and berry picking. Popular Forest trails include the Route of the Hiawatha, Trail 16 along the Bitterroot Divide, Trails 138 and 165 on the West Fork and East Fork of Willow Creek, Trails 133 and 7 to Cooper Pass, Trail 267T to St. Regis Lakes, and Trail 265T to Copper Lake.

The Route of the Hiawatha is a key attraction for the area. This bicycle trail follows the old railroad grade of the Chicago, Milwaukee and St. Paul Railroad. It starts about 6 miles southeast of Lookout Pass and winds along the Montana/Idaho Border. LPSRA operates the bicycle concession for the trail.

Trail 267T to St. Regis Lakes extends from Forest Road 18591 to the St. Regis Basin. This trail has been closed to automobiles, motorcycles, and all-terrain vehicles on a yearlong basis. Snowmobiles are not allowed on this road from October 15 to December 1 of each year to reduce wildlife disturbance.

Trail 16, the St. Joe Divide Trail, follows the high divide ridge from just south of the Silver Mountain ski resort to Lookout Pass. This 22-mile trail is utilized by many types of trail users, but motorcycles are the largest group, followed by mountain bikers and horse riders (IPNF, 1998). About 70% of the "trail" was bulldozed over in the quest for mineral deposits in the 1950s and 1960s. This wide-track feature allows ATVs access to much of the trail, although there are still several sheer rock faces that are choke points to full transit of the trail by ATVs. Several lateral trails access Trail 16, which is the premiere trail in the region (IPNF, 1998).

The West Fork and East Fork Willow Trails (138 and 165) are non-motorized trails that lead to Upper and Lower Stevens Lakes and Lone Lake. The steep trails lead to the beautiful alpine lakes in the shadow of Stevens Peak. Motorized visitors can look down into this lake basin from Trail 16 on the St. Joe Divide. There has been a great deal of camping at the lakes, resulting in bare and compacted soil, numerous campfire rings, and litter deposits (IPNF, 1998).

### Snowmobiles

Many of the roads and trails used by ATVs near Lookout Pass are also used by snowmobiles and cross-country skiers. The “Silver Country” web site, proclaims that the area has the world’s largest snowmobile trail system, “with over 50,000 square miles of freedom and over 1000-miles of trails”. Many of the snowmobilers coming out of Mullan utilize roads and trails on the north side of Mullan and Beacon Mountain to play in those areas. The only maintained snowmobile trail within 6 miles of the ski area is on the old railroad grade traversing Lookout Pass. The railroad grade route, called the “Lookout Pass Loop”, is also used for cross-country skiing. The railroad grade is open to motorized use in the summer and fall. The Lookout Pass Loop follows the abandoned railroad grade from Shoshone Park to Lookout Pass, then follows the headwaters of the St. Regis River to Taft, crosses I-90, and then circles back to Mullan Pass and Shoshone Park (**Figure 1-1**).

During some dry winters, access out of Shoshone Park on the Lookout Pass Loop is limited because of the snow level. During the 1999/2000 season, there was not sufficient snow for people to travel by snowmobile from Shoshone Park to the Lookout Pass area until January and snow had melted by mid April in the lower road areas above Shoshone Park, Idaho. The majority of snowmobilers traveling into the St. Regis Basin start at Lookout Pass. The snowmobilers park at the designated snowmobile parking area at Lookout Pass that is plowed by the ski area (Phil Edholm, pers. comm., 9/12/00).

Douglas Driden, Game Warden for Mineral County (Montana Fish, Wildlife and Parks), patrols the groomed snowmobile trail over Lookout Pass each week during the winter. Mr. Driden said that on an average weekend day, about 100 sleds per day traverse or start from Lookout Pass and travel along the groomed snowmobile trail that follows FS 3026 and 4208 (personal communication, 9/27/01). About 25 sleds per day traverse the pass during the week. These numbers include the sleds that start at Lookout Pass from the ski area parking lot. The heaviest use of the snowmobile trail is during the annual “Poker Run”, when 400 to 600 sleds traverse Lookout Pass per day (see discussion of the Poker Run below).

Mr. Driden said that the groomed snowmobile trail is used by snowmobilers who either: 1) travel the loop trail over Ford Hill [Mullan Pass] and Lookout Pass; 2) travel to play areas in the St. Regis Basin; 3) stop at destinations, such as the restaurant and bars at Lookout Pass and Haugen; or 4) a combination of the above. Parking for access to the groomed trail system is located at Shoshone Park, Lookout Pass, Taft, Saltese, and Haugen. Parked towing vehicles tend to carry from two to six snowmobiles. On a typical weekend day, about 20 to 35 snowmobile towing vehicles are parked at Lookout Pass, about 20 are parked at Taft, 10 are parked at Saltese, and 20 to 40 are parked at Haugen.

Many of the snowmobilers coming out of Mullan, Idaho currently travel from Shoshone Park to the northwest side of Runt Mountain on the abandoned railroad grade, then turn onto a primitive trail that crosses St. Regis Pass (proposed Snowmobile Reroute #1 on **Figure 2-2**). This route is not groomed, but is packed by regular use. The St. Regis Pass route is popular because it is a short-cut the St. Regis Basin and state line area (Phil Edholm, pers. comm., 9/12/00).

Two snowmobile trails groomed by other counties intersect the Lookout Pass Loop in Montana and traverse back to Idaho over the Bitterroot Mountains. Parking for snowmobiles is provided at Lookout Pass and other areas along the Lookout Pass Loop. The snowmobile trails are maintained by the Idaho Department of Parks and Recreation and the Montana Fish, Wildlife and Parks in cooperation with the Forest Service.

An annual “Poker Run” snowmobile event originates in the Shoshone Park area and ends in Haugan, Montana. Snowmobiles traverse the “Lookout Loop” during this event and cross the access road to LPSRA. The Superior Ranger District has directed traffic over the LPSRA access road in past years to prevent automobile/snowmobile collisions.

LPSRA hosts an annual snowmobile hill climb, the “Race the Face”. The two-day event is held in April after the ski area closes. The climb attracts about 230 competitors per day and hosts a total of about 800 people per day.

#### Downhill, Cross-Country, and Backcountry Skiing

Existing and proposed developed downhill (alpine) skiing facilities at LPSRA are described in **Chapters 1 and 2**. Crowding at the ski area and the effects of crowding on safety are discussed in **Chapter 1 – Use Rates and Crowding**.

Most downhill skiers stay within the ski area boundary and ski the slopes of the developed ski area. A small percentage of skiers leave the ski area boundary after using the ski lifts or parking lot for access to the backcountry for cross-country (Nordic) and backcountry (telemark) skiing. Cross-country and backcountry skiers share many of the Forest roads and trails with snowmobiles, especially those on the south side of Runt Mountain (**Figure 1-2**). The St. Regis Basin is a popular destination for cross-country and backcountry skiers.

#### Summer and Fall Use

**Picnicking:** One picnic area, Shoshone Park, is located 3 miles east of Mullan on the south fork of the Coeur d’Alene River. The park has 21 picnic units and two group kitchen facilities.

**Camping:** The nearest developed campgrounds to the ski area are located near De Borgia, Montana, and in Wallace, Idaho. “Cabin City” is a Forest Service campground 3 miles southeast of De Borgia, about 22 miles east of Lookout Pass. “Down by the Depot RV Park” is located on Nine Mile Road in Wallace. Overnight RV camping is allowed at the ski area, but there are no hookups.

**Off-trail Hiking, Berry Picking, and Wildlife Viewing:** Some off-trail hiking, huckleberry picking, and wildlife viewing occurs in the Bitterroot Range and at LPSRA. There are no designated wildlife viewing areas near the ski area, but wildlife viewing occurs from Interstate 90, Forest and county roads, trails, and off-trail areas.

**Hunting:** The area within 6 miles of LPSRA receives dispersed hunting activity during the big game and upland bird seasons. Hunting within 0.5-mile of Interstate 90 is light. Most of the hunting is road-oriented with some short walk-in hunts.

**Fishing:** Popular fishing areas within 6 miles of LPSRA include the South Fork of the Coeur d’Alene River (above the mine discharges near Mullan, Idaho), the St. Regis River, and nearby mountain lakes. The aquatic habitat and water quality of the upper St. Regis River and upper South Fork of the Coeur d’Alene River (above Mullan, Idaho) is in good condition (see **Chapter 3 – Fisheries**).

#### Area of Cumulative Effects

The cumulative effects area includes Shoshone County, Idaho, Mineral County, Montana, and other family-oriented day-use ski areas accessible from Missoula, Coeur d'Alene and Spokane. This cumulative effects area includes other the ski areas competing for the same ski area market as LPSRA.

The larger metropolitan drawing areas for the crest of the Bitterroot Mountains include: Missoula (about 100 miles), Coeur d'Alene (about 60 miles), and Spokane (about 90 miles). Approximately 50% of the skiers at LPSRA come from Coeur d'Alene, 35% from North Idaho (other than Coeur d'Alene, 7.5% from Spokane, 4% from Missoula, and 3.5% from small towns in Western Montana located between Lookout Pass and Frenchtown, Montana (Granger, 1999).

Other small ski areas used by northern Idaho and Spokane skiers include Mount Spokane near Spokane, Washington, and 49 Degrees North near Chewelah, Washington. Other small ski areas that cater to western Montana communities include Discovery Ski Area near Philipsburg, Montana, Blacktail Mountain near Lakeside, Montana, Lost Trail Pass south of Hamilton, Montana, Snow Bowl near Missoula, and Marshall Mountain near Missoula. These areas have lift tickets similar in cost to LPSRA (\$30/day and under for adults), an abundance of intermediate terrain (except Snow Bowl), and limited overnight facilities. Daily adult lift ticket prices at LPSRA are currently \$20 (for weekdays) to \$22 (for weekends and holidays), the lowest price in the region. The proposed action is not anticipated to cause an increase in lift ticket prices at LPSRA (Phil Edholm, pers. comm., 7/17/00).

Silver Mountain near Kellogg, Idaho, Big Mountain near Whitefish, Montana, and Schweitzer Mountain near Sandpoint, Idaho, are larger destination-type resorts with nearby lodging opportunities. Some of these areas have high-speed quads or gondolas that require higher lift ticket prices. Adult lift tickets at Silver Mountain range from \$25 to \$32 per day, Schweitzer Mountain rates are \$40 per day, and Big Mountain rates are \$47 per day.

### **3.4.3 Land Use and Access**

#### ***Area of Analysis***

The analysis area for Land Use and Access includes the proposed expansion area and the roads and trails that lead into and through the expansion area. Direct effects were evaluated for the LPSRA, the proposed expansion area, and its access road from Interstate 90. Cumulative and indirect effects were also examined for areas within 6 miles of the ski area which includes the nearest town, Mullan. Methods for the analysis included a combination of literature research, field visits, and discussions with personnel from the Idaho Panhandle NF.

#### ***Access***

LPSRA is accessed from Interstate 90 on the Montana/Idaho Border (**Figure 1-2**). Access to the ski area from the Interstate is provided by Exit 0 and a 1000-foot secondary road, which is under the jurisdiction of the USDA Forest Service.

The existing parking lot at LPSRA covers about 1.7 acres with asphalt and provides enough space for 260 cars. The parking lot has been crowded on weekends, holidays, and during special events. During the past two years, approximately 200 cars, 4 buses, and 20 trucks with snowmobile trailers are parked at the ski and recreation area parking lot on weekends and holidays. During the "Race the Face" snowmobile hill climb during April of 2000, numerous



cars, trucks, and snowmobile trailers were parked along the 1000-foot access road from Exit 0 and on both sides of the Interstate 90 overpass (Phil Edholm, pers. comm.).

Maintenance of the access road to the ski area and adjacent snowmobile parking area is conducted by LPSRA. The old railroad grade traversing Lookout Pass wraps around the north, east and south sides of Runt Mountain (FS 3026 and FS 4208). The groomed snowmobile trail along the railroad grade is shared with cross-country skiers. In the summer, the railroad grade is used by motor vehicles, ATVs, mountain bikes, and hikers. The railroad grade and the LPSRA access road are under the jurisdiction of the USDA Forest Service.

Numerous primitive roads traverse the existing ski area and the flanks of Runt Mountain (**Figure 1-2**). Some of the roads and trails were established during mine exploration of the area. Forest roads and trails are further discussed in **Chapter 3 – Recreation**.

### **Traffic Volumes**

Data on the average number of vehicles per day on interstate highways are collected by the Montana Department of Transportation (MDT, 1999) and Idaho Transportation Department (ITD, 1999). During 1997, a year-round average of about 5,500 vehicles per day traversed Lookout Pass along Interstate 90 from Saltese, Montana, to Mullan, Idaho. Approximately 23 to 33% of these vehicles were commercial units. During winter season weekends and holidays, the LPSRA access road is traversed by vehicles about 450 times per day. This includes about 225 vehicles making round-trips to the ski and recreation area. (Phil Edholm, 7/17/00, pers. comm.).

### **Land Use**

LPSRA is located on the border of Mineral County, Montana and Shoshone County, Idaho. The county seat for Mineral County is Superior, Montana, located 47 miles east of Lookout Pass. Wallace, Idaho, 13 miles west of Lookout Pass, is the county seat for Shoshone County.

The LPSRA permit boundary is on 335 acres of Federal land administered by the Idaho Panhandle NF (Idaho side) and Lolo NF (Montana side). The Coeur d'Alene Ranger District of the IPNF oversees the Special Use Permit for the LPSRA. Lands adjacent to the ski area are also Federal land administered by the IPNF and LNF. Private lands in the region tend to be clustered near the valley bottoms, but several patented mining claims are located in the upland areas (**Figure 1-1**). Federal lands administered by the USDI Bureau of Land Management and some state lands are located near Mullan, Idaho. All lands proposed for development under the action alternatives are Federal lands administered by the USDA Forest Service.

Land at lower elevations within 6 miles of the ski area is used for residential development, agriculture (hay production and grazing), fish production, and mining. The Hale Fish Hatchery is located about 0.5-mile northwest of the proposed expansion area along the South Fork of the Coeur d'Alene River. One underground silver mine, the Lucky Friday Mine, operates on the edge of Mullan, Idaho. The tailing ponds for the mine flank the South Fork of the Coeur d'Alene River about 3 miles west of Lookout Pass. Closed unpatented claims in the area of the proposed action are discussed in **Chapter 3 – Geology**. Compared to the flurry of activity of the 1980s and early 1990s, very little mining exploration is currently underway within the region.

The closest towns to the ski area are Mullan, Idaho, 6 miles west of the ski area, and Saltese, Montana, 10 miles east of the ski area. These communities contain small businesses, retail shops, motels, restaurants, and gas stations.

Land use in the proposed expansion area and surrounding upland areas has been primarily for wildlife habitat, timber harvest, and recreation (picnicking, hunting, cross-country skiing, backcountry skiing, snowmobiling, hiking, wildlife viewing, berry picking, and driving for pleasure) (see **Chapter 3 – Recreation and Wildlife** sections). Key attractions are the large network of snowmobile and cross-country ski trails, Forest roads and trails, LPSRA, and Shoshone Park (a day-use picnic area). Existing and proposed developed recreation facilities at LPSRA are described in **Chapter 1 – Existing Ski Area**, and **Chapter 2 – Alternatives**.

#### **Local Development**

Land values in Mineral and Shoshone Counties have increased steadily since 1991. Housing starts in the surrounding areas have outnumbered those in Shoshone County because of the stigma of the Bunker Hill EPA Superfund project in the Silver Valley (Kenny Hicks, Shoshone County Planning Administrator, 9/7/00). Shoshone County housing opportunities have grown slowly, but only about 50 new housing units have been built in the last 5 years and only two subdivisions have been proposed during the past 5 years (Mark Magnus, Shoshone County Building Official, 9/7/00).

Mineral County housing starts have increased over the past 10 years to about 30 per year. About 10 to 15 subdivisions have been proposed each year that each contain one or two lots. The growth has occurred in the western end of the county from Superior to the Idaho state line. Most of the incoming residents are retirees from the Spokane and Coeur d'Alene building second homes. Very few new jobs have been created in the county (Wayne Marchwick, Mineral County Health Planner and Inspector, 9/11/00).

Water rights and water use are discussed in **Chapter 3 - Water Resources**.

### **3.4.4 Socioeconomics**

#### ***Standards***

The Idaho Panhandle and Lolo National Forest Plans (IPNF, 1987a; LNF, 1986a) do not include standards specific to social and economic issues. However, the Forest Plan is an understanding between the Forest Service and the public on how the National Forest will be managed. In this light, when actions are proposed that are inconsistent with the Forest Plan, amendments to the Forest Plan should be considered. As discussed in **Chapter 1 – Forest Plan Changes**, the action alternatives would initiate changes in the Forest Plan regarding visual resources, recreation, and timber harvest.

### ***Area of Analysis***

Direct and indirect effects to socioeconomic resources were evaluated for Shoshone County, Idaho and Mineral County, Montana. Mullan, Wallace, and Kellogg, Idaho are in Shoshone County, whereas De Borgia, Haugan, and Saltese are in Mineral County. Cumulative effects were evaluated for other small family-oriented ski areas in the region that compete for a similar skier market. This section discusses the current skier market, population, employment, wages, and income in the areas of direct, indirect, and cumulative effects.

### ***Existing Conditions***

LPSRA is located in along the border of Shoshone County, Idaho and Mineral County, Montana. Most of the workers at the ski area come from the nearby communities of Mullan and Wallace, Idaho. A few workers are from Kellogg, and some volunteer ski patrol and ski instructors live in more distant communities, such as Pullman, Washington, Hayden Lake and Moscow, Idaho, and Frenchtown, Montana. Although volunteers live in more distant communities, the effect of the ski area on employment and income impacts is largely felt in the local communities where the paid employees live (Wallace, Mullan, and Kellogg, Idaho).

Approximately 50% of the skiers at LPSRA come from Coeur d'Alene, 35% from North Idaho (other than Coeur d'Alene), 7.5% from Spokane, 4% from Missoula, and 3.5% from small towns in Western Montana located between Lookout Pass and Frenchtown, Montana (Granger, 1999). Although LPSRA draws skiers from many distant communities, these larger outlying areas are less likely to feel any measurable economic effects from ski area use than the smaller nearby communities. The communities of Mullan, Wallace, De Borgia, Haugan, and Saltese, experience economic effects from the ski area to a greater degree than other more distant communities with greater populations and more diverse economies. The local communities cater to skiers by providing motels, gasoline stations, and restaurants. The economies of Shoshone and Mineral Counties are discussed below.

### **Population**

The 1999 population of Shoshone County was estimated to be 13,654 people (U.S. Census Bureau, 2000). During the peak of metal mining in the Silver Valley of Shoshone County, the population of the county reached about 23,000. A major decline in mining in the valley caused an out-migration in the 1980s. From 1980 to 1990 the county population decreased from 19,226 to 13,931. After losing 28% of its population in the 1980s, Shoshone County experienced a 2% decrease in population in the 1990s (U.S. Census Bureau, 2000).

Most of the residents of Shoshone County live in or near the towns of the Silver Valley, which includes the towns of Kellogg, Wallace, Mullan, Osburn, Pinehurst, Smelterville, Wardner, and several small unincorporated town sites.

The 1999 population of Mineral County was estimated to be 3,867 (U.S. Census Bureau, 2000). In the 1980s, a struggling economy caused the county to lose nearly 10% of its residents (3675 people in 1980 compared to 3315 in 1990). Between 1990-1999, Mineral County increased in population by 552 people, a gain of 17%.

Most of the residents of Mineral County live in the corridor of the Clark Fork River Valley and Interstate 90. The corridor includes the cities of Superior and Alberton and the un-incorporated towns of St. Regis, De Borgia, Haugan, and Saltese. People living outside the cities and towns tend to live in small subdivisions or dispersed home sites along the river valleys.

Employment in Mineral County did not keep pace with in-migration in the 1990s. Most of the incoming residents are retirees from the Spokane and Coeur d'Alene building second homes. Very few new jobs have been created in the county (Wayne Marchwick, Mineral County Health Planner and Inspector, 9/11/00).

### **Employment**

**Table 3-7** shows the composition of employment in the two counties by industry in 1994 and 1998. Between 1994 and 1998, the number of full and part-time employees in Mineral County rose from 1530 to 1743, an increase of 14%. Similarly, the number of full and part-time employees in Shoshone County increased from 5823 to 6680 between 1994 and 1998, an increase of 15%. The largest industries in both counties, with respect to employment, are retail trade, services, and government.

Employment in western Mineral County tends to be in tourism and traveler services. Residents of the Haugan, Saltese, and De Borgia area also work in logging and mining occupations. Residents of eastern Shoshone County tend to work in government, mining, retail trade, tourism, and traveler services.

**Table 3-7: Full and Part-Time Employment by Major Industry, Mineral and Shoshone Counties, 1994 and 1998 (number of employees)**

Industry / Sector	1994 Mineral County	1998 Mineral County	1994 Shoshone County	1998 Shoshone County
Farm Employment	82	85	45	46
Agriculture Services and Forestry	34	(D)	55	69
Mining	(L)	(L)	491	773
Construction	66	81	340	636
Manufacturing	151	177	423	513
Transportation and Utilities	67	94	248	183
Wholesale Trade	(L)	(L)	145	105
Retail Trade	383	486	1104	1298
Finance	43	(D)	244	271
Services	375	399	1298	1478
Government	324	336	1430	1308
<b>Total Employment</b>	<b>1530</b>	<b>1743</b>	<b>5823</b>	<b>6680</b>

Source: U.S. Department of Commerce, 2000.

(D) Not shown to avoid disclosure of confidential information, but the estimates for this item area included in the totals.

(L) Less than 10 jobs, but the estimates for this item are included in the totals.

### **Employee Earnings**

**Table 3-8** shows the composition of total employee earnings in the two counties in 1997. In Shoshone County, earnings were dominated by the government (27% of earning), mining (25%), and retail trade (15%). In Mineral County, the largest components of 1998 earnings were government (42%), retail trade (21%), and manufacturing (18%).

In 1996, Shoshone County per capita income was \$16,938, which was 85% of the state average and 69% of the national average. In the 1990s, the county continued to experience

unemployment rates above 10% (Idaho Department of Commerce, 2000). As of July 1996, the number of people of all ages in poverty was 3,009, about 21.4% of the county residents (U.S. Census Bureau, 2000).

In the 1980s unemployment rates ranged from 9 to 22% per year in Mineral County. From 1990 to 1997, the unemployment rate was an average of 10% per year (Montana Department of Labor and Industry, 2000). Job losses in logging and mill operations in Mineral County caused a high unemployment rate and below-average income levels. In 1995, the county's per capita income was \$13,039, which was 70% of the state average, and 56% of the national average (Montana Department of Labor and Industry, 2000). As of July 1996, the number of people of all ages in poverty was 745, about 20% of the county residents (U.S. Census Bureau, 2000).

**Table 3-8: Employee Earnings by Major Industry, Shoshone and Mineral Counties, 1998 (figures are in thousands of dollars)**

Industry / Sector	Shoshone County	Mineral County
Agriculture	Not provided	Not provided
Mining	25,465	Not provided
Construction	10,468	207
Manufacturing (including lumber)	6,503	3,138
Transportation and Utilities	3,608	513
Wholesale Trade	2,091	Not provided
Retail Trade	15,191	3,776
Finance	2,200	195
Services	13,849	2,521
Government	28,420	7,453
<b>Total Employment</b>	<b>103,613</b>	<b>17,824</b>

(D) Not shown to avoid disclosure of confidential information

Source: Idaho Department of Employment, 2000; Montana Department of Labor and Industry, 2000.

### **Affordability of Skiing**

Several public scoping comments for this EIS stated that the affordability of skiing is important to families who use LPSRA. Many of the families in Shoshone and Mineral Counties are economically unable to visit the larger destination resort areas. Lift ticket prices at LPSRA have been the lowest in the region and the Free Ski School for school children attracts many families to the area. During the 2001-2001 ski season, adult lift tickets are \$20 (weekday) to \$22 per day for adults, \$18 to \$20 per day for college students, \$15 to \$16 per day for ages 7-18, and \$0 for children 6 and under.

Adult all-day lift ticket prices at the largest Montana ski areas range up to \$56 (\$56 for Big Sky and \$47 for Big Mountain). Medium-sized ski areas tend to have ticket prices between \$30 and \$40 per day (Schweitzer Basin and Silver Mountain). The smaller family-oriented ski areas typically have lift tickets in the \$20 to \$30 range.

## **3.4.5 Roadless Areas**

### **Standards**

The IPNF and LNF Forest Plans (1986a; 1987a) established Forest-wide multiple use goals, objectives, and management area requirements, as well as management area prescriptions. The analysis of roadless lands, documented in Appendix C of the Final EISs for the Plans, describe each roadless area, the resources and values considered, the range of alternative land uses studied, and the effects of management under each alternative. As a result of the

analysis, some roadless areas were recommended for inclusion in the National Wilderness Preservation System and others were assigned various non-wilderness prescriptions.

The IPNF and LNF Forest Plans divided the Stevens Peak, Wonderful Peak, and Roland Point Roadless Areas into seven Management Areas that all have non-wilderness prescriptions. The prescriptions do not require development, but they do allow for it. As stated in the Draft EIS for the proposed Roadless Area Conservation Rule (USDA, 2000a), these roadless areas are currently “allocated to a prescription that allows road construction or reconstruction”. The Forest Plans state that the Stevens Peak, Wonderful Peak, and Roland Point Roadless Areas should be managed for non-wilderness uses, such as recreation, wildlife, range and timber. However, the Plans did not make “irreversible and irretrievable” commitments to development.

Interim Rules 36 CFR Part 212 (Road Management Rule) and 36 CFR Part 294 (Roadless Conservation Rule) are described in **Chapter 3 - Roadless Areas**. All project alternatives are consistent with these interim rules. No development is proposed in the nearby roadless areas.

### ***Area of Analysis***

The area of analysis for roadless areas for this EIS includes Forest Lands within 6 miles of the proposed expansion area. No roadless areas would be directly affected by the proposed action. Indirect and cumulative effects to three roadless areas may occur because of an increase in recreation visitors to LPSRA. The roadless areas are accessible from the Stateline Trail and other trails near Lookout Pass. Roads adjacent to the roadless areas also provide access to the roadless areas. The proposed expansion area on the southern side of Runt Mountain is visible from three nearby roadless areas.

### ***Existing Conditions***

Three roadless areas are located within 6 miles of the ski area: “Stevens Peak 1142”, “Wonderful Peak 1152”, and “Roland Point 1146” (**Figure 1-1**). Stevens and Wonderful Peak have roadless acreage in both the Idaho Panhandle (IPNF) and Lolo National Forests (LNF). The Roland Point Roadless Area is entirely in the IPNF. Information on the roadless areas was obtained from the Final EIS on the LNF and IPNF Forest Plans (IPNF, 1987b; LNF, 1986b).

#### **Stevens Peak Roadless Area #1142**

The roadless area nearest to the proposed expansion area is the Stevens Peak Roadless Area #1142 located 2 miles southwest of Runt Mountain along the Idaho/Montana divide. About 600 acres of the roadless area is administered by the Lolo National Forest (LNF) and about 4370 acres is administered by the Idaho Panhandle National Forest (IPNF). The roadless area boundary surrounds 600 acres of private land (patented mining claims). The most popular way to access the St. Regis Basin are the trails that originate at the Lookout Pass overpass on Interstate 90. A road and several trails extend up Willow Creek in Idaho to the lakes below Stevens Peak. A road along the St. Joe River borders the southern edge of the area. The roadless area interior is accessed by low-standard mining roads.

The majority of the roadless area burned in 1910 and re-burned in 1928. The area provides summer range for a variety of big game, including elk, whitetail deer, mule deer, and black bear. Cougar, bobcats, lynx, pine marten, and several small mammals also inhabit the area.

The LNF Forest Plan EIS stated that Stevens Peak area is popular for recreation, receiving about 6500 recreation visitor days per year (as of 1987). The greatest attractions are the alpine lakes: Upper and Lower Stevens and Lone Lake on the Idaho side and the St. Regis Lakes on the Montana side. These lakes provide fishing, swimming, and floating opportunities. The St. Regis Basin is an especially popular destination for snowmobilers and cross-country skiers in the winter and backpackers and hikers in the summer. Other forms of outdoor recreation include horseback riding, mountain climbing (limited), and pleasure driving with all-terrain vehicles and 4-wheel drive vehicles on several of the mining access roads. The area receives moderate hunting pressure in the fall.

A Special Use Permit has been issued from the Coeur d'Alene River Ranger District for an annual Jeep Jamboree. Each year the Jeep Jamboree uses a portion of the roadless area for one weekend. On that weekend, up to one hundred people could be using the area, and remoteness and solitude is greatly reduced in and around the roadless area.

#### **Wonderful Peak Roadless Area #1152**

Wonderful Peak Roadless Area #1152 is located on both sides of the Montana/Idaho border about 1.5 miles south of Runt Mountain. About 1,600 acres of the roadless area is administered by the LNF, and about 5,070 acres is administered by the IPNF. The roadless area boundary surrounds about 500 acres of private land (patented mining claims). Forest roads along the St. Joe River and Bullion Creek border the southern and eastern edges of the area. Low-standard mining roads, the State Line Trail, Wonderful Peak Trail, and Copper Gulch Trail offer interior access to the roadless area.

The Bitterroot Divide is characterized by open subalpine vegetation. Habitat varies from cedar/clintonia at lower elevations to mountain hemlock or subalpine fir types on the higher slopes. The 1910 fires burned the entire unit. Extensive nonstocked brush fields remain on the exposed southern slopes. Little old-growth timber remains anywhere within the unit.

The area serves as big-game summer and winter range for elk, whitetail deer, mule deer, and black bear. Other game and non-game species common to northern Idaho and western Montana also populate this unit. Little fishery resources exist within the unit.

This unit receives only light recreational use, with Copper Lake being the most popular destination, providing water-oriented activities. The primary activity throughout the unit centers on big-game hunting. Pleasure-driving with motorbikes and four-wheel drive vehicles also occurs on existing mining roads and maintained trails. Hiking/backpacking, horseback riding, and other activities remain limited.

#### **Roland Point Roadless Area #1146**

Roland Point Roadless Area #1146 is located on the south side of the Idaho/Montana border about 3.5 miles south of Runt Mountain. About 6,300 acres of the roadless area is administered by the IPNF. The roadless area boundary surrounds about 265 acres of private land (patented mining claims). Bonneville Power Administration (BPA) tower access roads, the Bullion Creek, Loop Creek and Cliff Creek Roads provide motorized access to the western, eastern, and southern boundaries. Low standard mining roads, the State Line Trail, and Triangle Peak Trail offer interior access.

The steep, rocky slopes of the area extend from the North Fork of the St. Joe River to over 6,500 feet on the Bitterroot Divide. The Bitterroot Divide is characterized by open subalpine vegetation. Habitat varies from cedar/clintonia at lower elevations to mountain hemlock or subalpine fir types on the higher slopes.

The entire area was burned by the 1910 fire. Existing nonstocked brush fields remain on the more exposed southern aspects, with immature sapling or small sawtimber stands of mixed composition on cooler northern aspects. Portions of the area were planted with off-site ponderosa pine or western white pine. Little old-growth timber remains anywhere within the unit.

The unit receives only light recreational use, with primary activity through the unit centering on big-game hunting. Pleasure driving with motorbikes and 4-wheel drive vehicles also occurs on existing mining roads and maintained trails. Hiking/backpacking, horseback riding, and other activities remain limited.

The area serves as big-game summer and winter range for elk, whitetail deer, mule deer, and black bear. Other game and non-game and non-game species common to northern Idaho and western Montana also populate this unit. The lower 2-mile reach of Lucky Swede Creek is considered an important fisheries stream.

### ***Wilderness Characteristics***

The wilderness characteristics of the three roadless areas within 6 miles of the proposed expansion area are described in the IPNF and Lolo Forest Plan Final EIS (IPNF, 1987b; LNF 1986b). Summaries of these wilderness characteristics are provided in **Table 3-9**.

**Table 3-9: Wilderness Characteristics of Nearby Roadless Areas**

<b>Character-istic</b>	<b>Stevens Peak Roadless Area</b>	<b>Wonderful Peak Roadless Area</b>	<b>Roland Point Roadless Area</b>
Natural Integrity	With the exception of a few old mining roads, the area has qualities predominantly influence by nature, rather than by man.	Affected by mining exploration roads, pits, and trenches. Copper Lake Road and dam and a white pine plantation also affect natural integrity.	Impact of human activity is moderate. Mining and exploration roads and disturbances. Roads completely encircle the area. Timber harvest east of the area.
Natural Appearance	Limited by the size of the area because logging activities outside the roadless area are visible from within the roadless area. Land within roadless area natural appearing.	Surrounding man-made features limit natural appearance: Bonneville Power Administration (BPA) power line; surrounding roads; Interstate 90; abandoned Milwaukee Railroad.	Surrounding man-made features limit natural appearance: Bonneville Power Administration (BPA) power line; surrounding roads; abandoned Milwaukee Railroad; timber harvest.
Solitude and Primitive Recreation	Opportunities exist, but are limited by rugged terrain and high elevations that concentrate use around the mountain lakes. Some camp sites overused. Numerous trails in the area.	Little opportunity because of the area size and surrounding developments. Little topographic and vegetative screening. Use concentrated on surrounding road system. Motorized use of trails and roads within area. Hunting opportunities, but little opportunity for other primitive recreation. Route of the Hiawatha receives heavy mountain bike use.	Little opportunity because of the area size and surrounding developments. Little topographic and vegetative screening. Use concentrated on surrounding road system. Motorized use of trails and roads within area. Hunting opportunities, but little opportunity for other primitive recreation. Route of the Hiawatha receives heavy mountain bike use.
Unique Features	Opportunities to view cirque lakes and glaciated peaks—features unavailable in the surrounding area. High elevation access is relatively easy in the winter and summer. Mining cabins, mining roads.	Much of area influenced by the 1910 Fire. Good big-game habitat resulted because of fire. High interest in elk hunting within the area.	Much of area influenced by the 1910 Fire. Good big-game habitat resulted because of fire. High interest in elk hunting within the area.

### ***Recent Activity***



Annual monitoring reports for the IPNF and LNF indicate that none of the roadless area acreages discussed above have changed since the implementation of the Forest Plans (IPNF, 1998b and LNF, 2000). About 5% of the roadless acres in the IPNF were removed from inventoried roadless areas from 1987 to 1998. About 6% of the roadless acres in the LNF were removed from roadless areas from 1987 to 1999. Compared to the anticipated development of roadless areas in the respective Forest Plans, 26% of the anticipated development has occurred on the LNF, and 35% of the anticipated development has occurred on the IPNF. There are currently 1,546,762 net acres of inventoried roadless areas on the LNF and IPNF.

### **Other Related Ongoing Planning Efforts**

Several USDA Forest Service rulemaking efforts are underway regarding roads and roadless areas. The rules are summarized in **Table 3-10**.

**Table 3-10: Comparison of Forest Service Rulemaking Efforts for Roads**

Parameter	Proposed Road Management Rule (36 CFR Part 212)	Proposed Roadless Conservation Rule (36 CFR 294)
Proposal	Identifies needed and unneeded roads. Gives emphasis to: <ul style="list-style-type: none"> <li>Rehabilitating needed roads</li> <li>Decommissioning unneeded roads</li> <li>Carefully considering adding roads</li> </ul> Integrates road analysis with Forest Plan revisions or amendments.	Prohibits road construction and reconstruction in unroaded portions of inventoried roadless areas. Includes planning direction for consideration of roadless characteristics, and appropriate uses and activities.
Focus	Science-based road analysis at various scales coordinated with ecosystem assessments.	Roadless area conservation.
Applicability	Applies to all NFS lands and resources	Applies to NFS Inventoried roadless and other unroaded areas.
Definitions	Defines <i>road</i> , <i>classified road</i> , <i>unclassified road</i> , <i>inventoried roadless area</i> , and <i>unroaded areas</i> .	Uses similar definitions as the proposed Road Management Rule.
Relationship to Roadless Issues	Provides transition criteria for road construction in inventoried roadless and other unroaded areas.	Proposes long-term protection and management for unroaded and inventoried roadless areas and their values.

Source: USDA, 2000a.

The Road Management Rule (36 CFR Part 212) addresses existing roads. It was approved in January 2001. The policy enacts procedural requirements that must be fulfilled prior to road construction in roadless areas. Completion of the Roadless Area Conservation Rule replaces the transition procedures of the proposed Road Management Rule, which address planning requirements for roadless areas.

The final Roadless Area Conservation Rule (36 CFR Part 294) was published in the Federal Register on January 5, 2001 and was to be effective May 12, 2001. The Final Rule prohibits new road construction and reconstruction and prohibits the cutting, sale, and removal of timber in inventoried roadless areas on National Forest System lands (with specific exceptions). On May 10, 2001, the Idaho U.S. District Court preliminarily enjoined the Forest Service from implementing the Roadless Area Conservation Rule.

### 3.4.6 Visual Resources

#### **Standards**

Standards for Visual Quality Objectives (VQOs) have been developed for each Management Area of the Lolo and Idaho Panhandle National Forests (LNF, 1986a; IPNF, 1987a). The Forest Plan standards are general, and the Forest Service Visual Management System (VMS) provides methods for determining more site-specific objectives at the project level. VMS gives a systematic approach for determining levels of deviation from a natural appearance that the majority of forest users will likely find acceptable and consistent with their expectations in given settings. The VMS relies on site-specific inventories for the development of objectives or VQOs. For this EIS, Forest Plan objectives and standards were examined and VQOs were evaluated using the Visual Management System.

The inventoried VQOs are based on combining landscape visibility and landscape variety evaluations. Landscape visibility is categorized by view sensitivity as defined by VMS (Sensitivity Level 1 is most sensitive and 3 is least), and distance of visible land from those view areas (*foreground* or *fg* is 0 to 0.5-miles from viewer, *middle-ground* or *mg* is 0.5 to 4 miles out from viewer, and *background* or *bg* is 4 to 15 miles out from viewer). Landscape variety is based on regional character attributes (Class A is distinctive, B is common, and C is minimal). Within the proposed expansion area, the landscape overall meets the criteria of Variety Class B.

VQO's inventoried in the area include: 1) *Retention*, requiring maintenance of a natural appearance with management not noticeable to viewers; 2) *Partial Retention*, where management must appear near natural and remain subordinate to the natural landscape character; and 3) *Modification*, allowing for management to dominate only if it borrows from natural elements in the landscape and appears subordinate in background. Further information on mapping Visual Quality Objectives can be found in USDA Handbook Number 462: *National Forest Landscape Management, Volume 2, The Visual Management System*.

#### **IPNF Forest Plan**

The IPNF Forest Plan established the following general Forest-wide goals, objectives, and sensitivity levels that relate to Visual Quality Objectives of the proposed expansion area.

- **Goals** (page II-1) – Manage the visual resource by maintaining the visual quality objectives. Manage to emphasize the uniqueness of the visual quality.
- **Objectives** (page II-4) – Manage the forest lands so as to attain high visual quality commensurate with other resources by meeting or exceeding the adopted visual quality objectives.
- **Forest-Wide Standards** (page II-25) “*Meet adopted visual quality objectives. Exceptions may occur in unusual situations; these will be identified through the project planning process involving an ID Team. Examples of some exceptions are areas where past management practices make it impractical to meet the adopted visual quality objectives, and large areas where the morality rate for timber is very high. Mitigation measures should be developed in areas where VQOs are not met. The visual resource has been evaluated based on visual sensitivity levels assigned to travel routes, use areas, and water bodies in and adjacent to the IPNF. Adjustments in VQO boundaries based on project-level analysis will conform with principles in FSM 2380.*”

- **Sensitivity Levels:** (page D-2) Sensitivity Level 1 areas near Lookout Pass include: Interstate 90, Shoshone Park, Lookout Pass Ski and Recreation Area, and Mullan, Idaho. No Sensitivity Level 2 areas are located near the ski area.
- **Distance zones:** From Interstate 90, the proposed expansion areas are in the foreground and middle ground. The proposed expansion area would not be visible from the town of Mullan or Shoshone Park.

Visual resource management direction for the Management Areas affected by the action alternatives is described below and shown in **Table 3-11**. Management Area 17 includes the existing ski area. Alternative B would affect both MA 17 and MA 1, whereas Alternatives C and D would affect only MA 17. The VQOs for Management Area 1 and 17 were mapped by the Forest as “Retention” because Interstate 90 is a sensitive receptor.

**Management Area 1** (pages III-2 and III-3 of the IPNF Forest Plan):

- **Description:** “*This management area includes lands of low to high visual sensitivity.*”
- **Goals:** “*Meet visual quality objectives*”.
- **Standards:** “*Manage for approximately 70,000 acres of retention VQO and 245, 000 acres of partial retention VQO. The remaining area will be managed for Modification or Maximum Modification VQO. Existing areas that do not meet VQO will be brought up to standard as it is cost effective to do so*”.

**Management Area 17** (pages III-74 and III-75 of the IPNF Forest Plan):

- **Description:** “*Existing and proposed developed recreation sites*”.
- **Goals:** “*Manage for developed recreation in a roaded natural and rural recreation setting*”.
- **Standards:** “*The visual quality objective is Retention on approximately 2,300 acres and Partial Retention on 48 acres*”.

**Table 3-11: Existing Visual Quality Objectives**

Management Areas	Visual Quality Objective
MA-1	Depends on Sensitivity Level Maps <sup>1</sup> (Mapped VQO is “Retention”)
MA-17 (existing ski area)	Depends on Sensitivity Level Maps <sup>1</sup> (Mapped VQO is “Retention”)
MA-8 (existing ski area)	Modification <sup>2</sup>
MA-9	Specific to each recreation area plan <sup>2</sup> (Mapped VQO is “Retention” and “Partial Retention”)

<sup>1</sup> IPNF Forest Plan (1987a)

<sup>2</sup> LNF Forest Plan (1986a)

**LNF Forest Plan**

The LNF Forest Plan established the following general Forest-wide objectives and standards that relate to Visual Quality Objectives and the proposed expansion area.

- **Objectives** (page II-2) – “*Resource management activities are significantly constrained by visual quality objectives in areas adjacent to or readily visible from major highways, roads, trails, campgrounds, and other recreational developments.*”
- **Forest-Wide Standards** (page II-20) – “*Visual rehabilitation of past management activities will be evaluated where needed during preparation and implementation of the timber sale program.*”

Visual resource management direction for the Management Areas affected by the action alternatives is described below. Management Area 8 includes the existing ski area, whereas MA 8 and 9 include areas of the proposed action. The VQO for MA 8 is “Modification”. The

VQOs for Management Area 9 were mapped as “Retention” for areas near Interstate 90 and “Partial Retention” for areas further away from Interstate 90.

**Management Area 8** (pages III-24 and III-25):

- **Description:** “Ski areas under Special Use Permits”.
- **Goals:** “Provide opportunities for developed facilities to accommodate downhill skiing.”
- **Standards:** “Management practices will follow guidelines for the Modification visual quality objective. The impacts of management activities will be visually assessed from the nearest viewpoints contained in the sensitivity level maps on file.”

**Management Area 9** (pages III-26 and III-27):

- **Description:** “Parts of the Forest that receive concentrated public use. A proposed expansion of the Lookout Pass Ski Area is in this Management Area.”
- **Goals:** “Provide for a wide variety of dispersed recreation opportunities.”
- **Standards:** “The visual quality objectives will be determined as part of each recreation area plan.”

**VQOs for Lookout Pass Ski and Recreation Area**

As discussed above, the existing ski area is in MA 8 and 17, Alternative B would be in MA 17, MA 8, MA 1 and MA 9, and Alternatives C and D would be in MA 17, 8 and 9. The VQOs for MA 1 and 17 are “Retention”, whereas MA 8 is “Modification”. Management Area 9 is mapped as “Retention” for areas near Interstate 90 and “Partial Retention” for areas further away from Interstate 90.

The Forest Plan VQO of “Modification” has been met for MA 8, which includes the existing ski area in the Lolo National Forest. The VQO of “Retention” has not been met for Management Area 17, which includes the existing ski area. The VQO for the existing ski area in MA 17 more closely fits the VQO of “Modification”. However, the view of the ski area from Interstate 90 is very brief to highway travelers on the Idaho side of Lookout Pass. In addition, the viewing platform of the ski hill is exempt from foreground requirements of Retention (from views within itself) because recreation facilities are necessary to provide the view.

***Area Of Analysis***

The area of direct, indirect, and cumulative effects for visual resources includes the proposed expansion area and travel ways, home sites, and other commonly used sites that view the expansion area on the north and south sides of Runt Mountain. Travel ways identified as potentially affected by the proposed action are shown on **Figures 2-1, 2-2 and 2-3** and include portions of Interstate 90 and all other county, private, and forest roads and trails with views of the proposed expansion area.

Some of the proposed action would be viewed from some portions of Interstate 90 on the north side of Runt Mountain within about 1.5 miles of Lookout Pass. The action alternatives would probably not be visible from Interstate 90 on the Montana side of Lookout Pass. The action alternatives would be visible from some of the Forest roads and trails shown in **Figures 2-1, 2-2 and 2-3**. Visual resources were evaluated using a combination of site visits, literature research, and information from the visual specialists at the Idaho Panhandle and Lolo National Forests.

***Landscape Character, Condition, and Past Management***

The proposed expansion area lies upon a landform and in vegetation typical for the region. The landscape of the ski area and nearby Bitterroot Range is characterized by low round-topped mountains covered with a broad mosaic of mostly conifer forest interspersed with dry and wet meadows. These landscapes are dominated by forested ridges and slopes with narrow river bottoms and meandering water ways—characteristics that all contribute to scenic quality but lack specific outstanding or unique visual features.

Most of the landscape along the Bitterroot Range within many miles of the ski area was burned in the 1910 fires. Non-stocked brush fields tend to dominate southern slopes, whereas immature sapling and small sawtimber stands of mixed composition are on the cooler north aspects. Thick lodgepole pine stands less than 90 years old are common on many of the north aspects (see **Chapter 3 – Vegetation**).

Agricultural development at lower elevations is limited by the narrow valley bottoms and steep hillsides. Mine development, tailings and waste rock dominate much of the scenery west of Lookout Pass near the towns of Mullan, Wallace, Kellogg and other small communities of the Silver Valley. Since the 1880s, the Silver Valley has been a center for hard rock mining.

Scenery in the upper Mullan Valley, as viewed from Interstate 90 northwest of Lookout Pass, is enhanced by the pastoral scene along valley floor where open hay fields and a few ranch buildings are clustered. However, a large tailing impoundment of the Lucky Friday Mine is located west of the ranch buildings and east of Mullan. Surrounding forested lands show large to small clear-cut and partial cut-harvest units on private and public lands. Some of these past harvest units appear as dominant forms in higher views, such as I-90 near Lookout Pass.

Views from within the Mullan Valley are limited by topography and tall trees. Clear-cut units are visible in portions of the valley, but the tall trees surrounding the Hale Fish Hatchery and Shoshone Park picnic area create a secluded natural-appearing atmosphere.

East of Lookout Pass, I-90 follows the St. Regis River along narrow valley bottoms flanked by timber and a few small communities (De Borgia, Saltese, and Haugan). Scattered residential dwellings and a few hay fields are visible along the valley bottom. The natural-appearing forested slopes and ridgelines east of the St. Regis drainage and the relative lack of visible modifications (save the meandering I-90) contributes to the scenic integrity of the area.

The Bitterroot Range near Lookout Pass has been used for timber harvest in recent years in areas where the 1910 fires left mature stands of timber. Recent use of the Bitterroot Range (within the last 30 years) is evident as large to small clear-cut and partial cut-harvest units on private and public lands. These alterations appear along mid- to upper-slopes of the mountains as geometric forms of contrasting color. White open areas in winter or golden grass in summer contrast with the dark green forest. Some of these past harvest units appear as dominant forms in higher views (i.e., from LPSRA) but are generally subordinate to the characteristic landscape.

Roads are also obvious alterations in the region; some appear as linear features that contrast with the surroundings. Other dominant features are powerlines, with strait corridors cut through the trees across lands of all ownerships. Historic mine adits and waste rock piles are less evident near Lookout Pass than near the towns of the Silver Valley.

### **Views of the Proposed Expansion Area**

Visual access to LPSRA is currently rather limited, considering its close proximity to I-90. Visibility of the existing ski area is blocked by trees and topography, such as the abandoned railroad grade and cut-slopes of I-90. Viewers traveling I-90 cannot see the existing ski area until directly adjacent to the ski area base facilities. No other sensitive receptors can view the ski area because of topography and vegetative screening.

#### **South Slopes of Runt Mountain**

The south slopes of Runt Mountain are covered with open glades, rocky cliffs, and a mixed conifer forest (see **Chapter 3 – Vegetation**). Forest Road 7896 and an abandoned railroad grade (Forest Road 4208) are visible from I-90 (**Figure 1-2**). Foreground and middle-ground views of the southeast corner of Runt Mountain from I-90 start about one mile east of the pass, but trees and topography block views of the existing runs in this area. The proposed expansion area on the south side of Runt Mountain would probably not be visible from Interstate 90 going east. Predicted visual impacts are discussed in **Chapter 4 – Visual Resources**.

Forest Roads and trails accessed from Lookout Pass are popular access routes for recreation in the nearby mountains. Views of the action alternatives would be visible from many of the roads and trails shown in **Figure 1-2** and discussed in **Chapter 3 - Recreation**. Several roadless areas located along the Bitterroot Divide currently allow views of the south face of Runt Mountain, the railroad grade, forest roads, and Interstate 90 (see **Chapter 3 - Roadless Areas**). No private residences or developed public facilities in Montana have views of the proposed expansion area.

#### **North Slopes of Runt Mountain**

The proposed expansion area on the north side of Runt Mountain is currently covered with a dense forest containing five conifer species (see **Chapter 3 – Vegetation**). The views of the expansion area would depend upon the alternative chosen (see **Chapter 4 – Visual Resources**). Some of the proposed expansion area would be visible along short sections of Interstate 90 within about 1.5 miles adjacent and west of the ski area. This view is now dominated by the cut slopes of I-90 and an old railroad grade (FS 3026) parallel to Interstate 90. The I-90 cut slopes are steep rocky banks with concrete reinforcement in some areas. Only small portions of the lower forested slopes of Runt Mountain are visible from I-90. None of the existing ski area is visible from the north side of Runt Mountain.

The nearest buildings, public facilities, and private residences to the ski area are located in the Mullan Valley, northwest of the ski area. The Hale Fish Hatchery and Shoshone Park picnic area are about 0.5 mile northwest of the proposed expansion area. The nearest residence is about 1.5 miles northwest of the expansion area. Views of the proposed runs and lifts on the north side of Runt Mountain would be blocked at the Hale Fish Hatchery and Shoshone Park by tall trees and steep topography. The north side of Runt Mountain is also blocked from viewers in the towns of Mullan and Wallace, Idaho by intervening topography and forested areas. The north side of Runt Mountain and Interstate 90 may be viewed as middle-ground and background from private lands in the eastern Mullan Valley. Interstate 90 and the north side of Runt Mountain may be visible as middle-ground and background from the numerous trails and roads at higher elevations north of the ski area near the Montana/Idaho divide.

## CHAPTER 4 ENVIRONMENTAL CONSEQUENCES

### 4.1 INTRODUCTION

The purpose of this chapter is to disclose the environmental consequences of the various alternatives that could be implemented regarding the proposed expansion of Lookout Pass Ski and Recreation Area (LPSRA). The No Action Alternative is not discussed in extensive detail, as the No Action Alternative would represent ongoing existing conditions, as described in **Chapters 1 and 3**. The “proposed action” or “the action alternatives” include Alternatives B, C and D.

Effects of the action alternatives are characterized in this chapter as direct, indirect, or cumulative. Mitigation and monitoring measures are listed for potential impacts, where applicable. Mitigation measures are also discussed in **Chapter 2** – Features Common to the Action Alternatives. Other resource disclosures include identification of "Potential Conflicts with Other Jurisdictions"; "Adverse Environmental Impacts that Cannot Be Avoided"; "Relationship Between Local Short-term Use and Long-term Productivity"; "Irreversible and Irretrievable Commitments of Resources"; and "Specifically Required Disclosures".

Direct and indirect effects result from the action alternatives (Alternatives B, C and D). Cumulative effects are those effects that result from incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agencies (Federal or non-Federal) or persons are undertaking such other actions.

The Management Areas in the Lolo and Panhandle National Forest Plans (IPNF, 1987a; LNF, 1986a) affected by the action alternatives are shown in **Figure 1-4** and discussed in **Chapter 1**.

### 4.2 PHYSICAL ENVIRONMENT

#### 4.2.1 Geology

##### ***Alternative A – The No Action Alternative***

Under the No Action Alternative, the LPSRA would not be expanded and none of the action alternatives would take place. The No Action Alternative would maintain the existing condition at LPSRA (see **Chapter 3** - Geology).

##### ***Effects Common to the Action Alternatives***

##### ***Direct, Indirect, and Cumulative Effects***

All action alternatives would prohibit mineral development in the special use permit area. However, there is a low probability that undetected mineral resources are present. There is also a low probability that seismic activity would adversely affect the existing ski area and the proposed expansion area.

Although numerous small prospect pits and several large trenches are located on Runt Mountain, no economic mineralization has been discovered in the proposed expansion area. High concentrations of metals have not been found in the geologic formations on or near Runt

Mountain. There are no historic mine disturbances on or near Runt Mountain that discharge high concentrations of metals to surface water. Mineral potential maps indicate that Runt Mountain has a moderate potential for base- and precious-metal exploitation. No active mining claims are located in the area of proposed development. The action alternatives are not anticipated to remove potential mining areas from exploration and development. The probability of finding economic minerals is low to moderate, based upon the rock types present and previous exploration in the area of direct and indirect effects.

As stated in **Chapter 3 - Geology**, Lookout Pass is in a region with relatively low levels of seismicity, compared to much of western Montana and eastern Idaho. The USGS national hazard map (USGS, 2000a) shows that the ski area is in a relatively low seismic hazard area. There is a 2% probability of exceeding 17.5% g peak acceleration in 50 years. Seismic shaking has not been a concern for the present operation.

No other projects are proposed in the cumulative effects area that would affect geologic resources. Slope stability is discussed in **Chapter 4 - Soils**.

#### **Consistency with the Forest Plan and Regulatory Framework**

The impacts of the action alternatives on the geologic resource appear to be consistent with management goals of the Forest Plans and other regulatory framework since no special use permits have been proposed or authorized for mining activity in the proposed expansion area.

#### ***Comparison of Alternatives***

The No Action Alternative would maintain the existing condition at LPSRA. No adverse effects to or from geologic resources are expected for any of the action alternatives. The action alternatives would not limit access to existing mining claims. The proposed project area is not located in an area with high concentrations of metals or historic mine disturbances that produce high metal concentrations in surface water. The impacts of the action alternatives on the geologic resource appear to be consistent with management goals of the IPNF and LNF Forest Plans and other regulatory framework.

### **4.2.2 Soils and Slope Stability**

#### ***Alternative A - The No Action Alternative***

The No Action Alternative would maintain the existing condition at LPSRA (see **Chapter 3 – Soils and Slope Stability**). Under this alternative, no new soil disturbances would occur because of the action alternatives. Soil disturbance and erosion could take place in the future due to road construction, timber harvest or other activities, as permitted under existing management guidelines. Soil erosion would continue to occur along Primitive Roads A and B, Forest Road 18591 and Primitive Trail A.

#### ***Effects Common to the Action Alternatives***

##### **Direct and Indirect Effects**

This section identifies effects common to the action alternatives and the following section summarizes differences between action alternatives. The action alternatives would result in limited soil erosion with little, if any, sediment delivery to streams. Soil would be exposed to erosion during construction of the roads, parking lot, sewage system and buildings as well as



during regrading of existing and proposed ski runs. Soil erosion, compaction and displacement would also occur during tree removal for new ski runs and lifts. Current soil erosion problems on existing roads and trails would be eliminated.

Approximately 1.2 to 1.7 miles of temporary roads would be constructed on the north and south sides of Runt Mountain, depending upon the alternative (**Figures 2-1, 2-2 and 2-3**). These roads would be used for harvesting trees from ski runs and lift lines as well as for installing lifts. After timber harvest and lift installation, these temporary roads would be returned to the original contour and revegetated.

Approximately 3400 feet of existing road (Primitive Road A and FS 18951) would be improved for harvesting trees from ski runs and lift lines as well as for installing lifts (**Figures 2-1, 2-2 and 2-3**). This improvement would include regrading the road surface and installing water bars to prevent water from leaving the wetland area and eroding the roadway. This road drainage improvement is discussed further under Comparison of Alternatives. All existing uses would continue on Forest Road 18951. Primitive Road A (2100 feet) would be regraded following tree harvest to a width appropriate to future use for cross-country skiing, hiking and non-motorized vehicles. All disturbed soil would be revegetated. Current erosion on Primitive Trail A and Primitive Road B would be eliminated by installing water bars on each trail and by revegetating all disturbed soil. Erosion would further be eliminated on Primitive Roads A and B and Primitive Trail A by eliminating future motorized wheeled vehicle use.

The action alternatives would include regrading and revegetating approximately 2 acres of existing ski runs to improve skiing quality. The action alternatives also include regrading approximately 2.7 - 6.8 acres of new ski runs, mainly at the bottom of north side ski runs where they feed into the lower lift station (**Figures 2-1, 2-2 and 2-3**). This regrading is necessary to provide a safe and skiable transition from the ski runs to the existing railroad grade. Soil erosion may occur during these regrading efforts if large precipitation events occur before revegetation is complete. These potential effects are discussed further under Comparison of Alternatives.

The action alternatives would remove 85-145 acres of trees to create new ski runs and lifts, depending upon alternative. Soils would be exposed to erosion for a short period during tree harvest and slash disposal. These activities remove the soil litter layer from a portion of the area and may result in limited erosion, compaction or displacement of the soil surface. Small areas of soil compaction or displacement may also occur. No areas of long, continuous mineral soil exposure would result from timber harvest and slash disposal. This factor combined with the high rock content and permeability of soils would help prevent soil erosion. Limited soil disturbance may also occur in relation to stump removal. Timber harvest specifications would be written to cut trees as low to the ground as possible to eliminate the hazard of stumps. Where stumps are not cut low enough, they would be treated either by re-cutting, by breaking down with harvest equipment or by removal by harvest equipment. Stump removal disturbances would occur at small, disconnected sites and are not expected to cause measurable soil erosion.

Soil would be exposed to short-term erosion during construction of the one-acre parking area under the action alternatives. The parking lot area would be graded and then surfaced with gravel or crushed rock to minimize long-term erosion. Drainage from the parking lot and building expansion area would be routed to vegetated areas to prevent runoff from reaching streams.

Construction activities for buildings, lift towers, lift stations and the sewage system would occur under the action alternatives and would only affect very small areas (one acre total). The high rock content and permeability of soils combined with the small area of individual disturbances are expected to prevent measurable soil erosion.

No impacts to slope stability are expected as a result of action Alternatives B and D. The specific activities proposed under these alternatives would not increase the risk of slope failure. Factors that could create slope instability include over-steepening, adding weight, or adding moisture to potentially unstable slopes. Slope instability would be increased under Alternative C as described below.

#### **Effectiveness of BMPs and Mitigation Measures**

Best Management Practices (BMPs), mitigation and monitoring measures, and INFISH standards would be used in culvert sizing and installation to reduce the potential for sediment delivery to streams (see **Chapter 2** – Inland Native Fish Strategy, and Mitigation and Monitoring Methods). These BMPs have proven effective in preventing soil impacts and water quality effects (Montana DNRC, 1998, USDA Lolo National Forest 2002, Idaho Department of Environmental Quality 2001). A representative of the IPNF would inspect culvert installations and ski run construction near streams to ensure compliance with BMPs and to identify any additional erosion control activities needed. Additional mitigation measures may include final grade control, water bars, silt fences and erosion control mats. Scheduling regrading for the drier portion of the summer would also reduce erosion on regraded slopes.

#### **Cumulative Effects**

The action alternatives are not expected to create long-term effects to soil productivity, erosion, or sedimentation. Potential short-term effects are discussed above.

The only other recent project within 6 miles of Lookout Pass was the Snowstorm Canyon Project, which was completed in the 1990s. The Snowstorm Canyon Project was located immediately north of Lookout Pass and included 507 acres of timber harvest, 1.59 miles of new road construction and 4.5 miles of road reconstruction. Monitoring for this project did not find any long-term effects on soil productivity, erosion or sedimentation (Williams, 1992). No soil impacts were evaluated as serious and no effects on water quality were found. The lack of impacts was due to the additional mitigation measures implemented, use of BMPs, and riparian buffers. The combined effect of the action alternatives with the Snowstorm project is not expected to adversely affect soil resources.

Two other known future projects are within 6 miles of Lookout Pass: 1) the Touch America Fiber Optic Project (TA, 2000); and the North Fork St. Joe Project (IPNF, 1999). The North Fork St. Joe project is proposed southwest of Lookout Pass in another drainage separate from the two in which Lookout Pass is located. This project includes prescribed burning, timber harvest, tree planting, noxious weed treatments, road construction and other activities. The record of decision for this project found no adverse effects on soil resources that would add to those anticipated from the LPSRA action alternatives.

The Touch America Fiber Optic Project includes installation of a fiber optic line, mainly by cable plow, and mainly into existing rights-of-way. In the vicinity of Lookout Pass, the fiber optic cable would be installed into the old railroad bed on the east side of Lookout Pass and into the interstate highway fill on the west side of the pass. Potential impacts to soil resources from this activity are predicted to be very minor and would not affect soil quality or erosion potential (TA,

2000). The combined effect of the action alternatives with the Touch America project is not expected to adversely affect soil resources.

The Jeep Jamboree is a yearly event that occurs on Forest roads and primitive trails of the cumulative effects area. However, the Jamboree provides education regarding decreasing impacts from wheeled motorized use. The event has received the USDA Forest Service “National Tread Lightly Award” and is not expected to increase soil compaction or create additional soil loss in the cumulative effects area. The combined effect of the Jeep Jamboree and the action alternatives is not expected to adversely affect soil resources.

### **Consistency with the Forest Plan and Regulatory Framework**

The impacts of the action alternatives on the soil resource appear to be consistent with management goals and standards of the Forest Plans and other regulatory framework since long-term soil productivity will be maintained and at least 80% of activity area will be maintained in a condition of acceptable productivity.

### ***Comparison of Alternatives***

This section and **Table 4-1** compare the potential impacts to soil resources for each of the alternatives.

**Table 4-1: Comparison of Alternatives - Soil**

<b>Issue</b>	<b>Alternative A - No Action</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>
Limited soil erosion, displacement or compaction for tree removal	No change	145 acres of tree removal	91 to 93 acres of tree removal	85 acres of tree removal
Short-term erosion on temporary roads for timber harvest and lift installation	No change	1.7 miles of temp roads	1.2 miles of temp roads	1.2 miles of temp roads
Short-term erosion at temporary and permanent culvert installations	No change	5 temp and no perm culverts	3 temp and 2 perm culverts	3 temp and 1 perm culverts
Short-term erosion at existing culvert extensions	No change	100 feet of culvert extension	60 feet of culvert extension	60 feet of culvert
Short-term erosion at regrading sites for existing and new runs	No change	8.8 acres of regrading	6.4 acres of regrading	4.7 acres of regrading
Trail construction - north end of Snowmobile Reroute #1	No change	No change	3600 to 5260 feet (depending on route chosen)	No change
Effect on soil productivity	No change	No change	No change	No change
Slope stability risk	No change	No change	Increased at Snowmobile Reroute #1	No change
Road upgrade for timber harvest followed by reconstruction into trail for hiking, biking and cross-country skiing (Primitive Road A)	No change	2100 feet	2100 feet	2100 feet
Road upgrade for timber harvest including improved erosion control features (Forest Road 18591). Winter Snowmobile Reroute around a 1200-foot section.	No change	1300 feet	1300 feet	1300 feet
Effect on soil erosion from timber harvest activities.	No change. Erosion would continue on Primitive Roads A and B, Primitive Trail A, and Forest Road 18591.	Potential for a small, temporary erosion increase. Potential is higher than Alternatives A, C and D due to larger acreage of disturbance.	Potential for a small, temporary erosion increase. Potential is lower than Alternative B due to smaller acreage of disturbance.	Potential for a small, temporary erosion increase. Potential is lower than Alternatives B and C due to smaller acreage of disturbance.

Effects on soil productivity would not change under Alternative A. Erosion would continue to occur on Primitive Road A adjacent to the wetland area on the south side of Runt Mountain. Erosion would also continue on Primitive Trail A, Primitive Road B, and Forest Road 18591.

Limited soil erosion, displacement or compaction would occur on 145 acres of tree removal for runs, lifts and snowmobile reroutes under Alternative B, 91 to 93 acres under Alternative C, and 85 acres for Alternative D.

Short-term erosion on temporary roads for timber harvest and lift installation would occur on 1.7 miles of road under Alternative B and 1.2 miles under Alternatives C and D.

Small, temporary increases in soil erosion would occur at five temporary culvert locations and along 100 feet of culvert extensions under Alternative B. Alternatives C and D would include three temporary culverts and 60 feet of culvert extensions. Alternative C would have two permanent culvert installations and Alternative D would have one.

Short-term erosion on 8.8 acres of regrading for existing ski runs and new ski runs would occur under Alternative B. Alternative C would include 6.4 acres of regrading and Alternative D would include 4.7 acres of regrading.

No change in slope stability risk would occur under Alternatives B and D. There may be an increased risk of slope instability under Alternative C resulting from construction of Alternative Snowmobile Reroute #1-B. This increased slope stability risk would result from cut and fill activities required to construct a system of switchbacks on a steep slope at the north end of Alternate Route B of Snowmobile Reroute #1.

The impacts of the action alternatives on the soil resource appear to be consistent with the management goals and standards of the Forest Plans and other regulatory framework.

#### **4.2.3 Water Resources**

##### ***Alternative A - The No Action Alternative***

The No Action Alternative would maintain the existing condition at LPSRA (see **Chapter 3 - Water Resources**). No change in impacts to water resources would occur as a result of the No Action Alternative.

##### ***Effects Common to the Action Alternatives***

###### **Direct and Indirect Effects**

###### **Water Quality**

Approximately 1.2 to 1.7 miles of temporary roads would be constructed on the north and south sides of Runt Mountain, depending upon the alternative (**Figures 2-1, 2-2 and 2-3**). These roads would be used for harvesting trees from ski runs and lift lines as well as for installing lifts. After timber harvest and lift installation, these temporary roads would be returned to the original contour and revegetated. The temporary roads are located on the upper slopes of Runt Mountain and are not located near or cross any streams. They would cross 3-5 swales that may have seasonal surface water flow but do not have developed streambeds and banks or riparian vegetation. These swales are not classified as streams under the Montana Streamside Management Zone Law (Montana DNRC, 1991). For the temporary roads, 3-5 temporary culverts (depending upon alternative) would be installed at swale crossings on the north side of Runt Mountain to pass ephemeral surface flow should any occur.

Each action alternative includes extending one culvert on the north side of Runt Mountain by 60-100 feet, depending upon the alternative. This is discussed further under Comparison of Alternatives below.

Approximately 3400 feet of existing roads would be improved for harvesting trees from ski runs and lift lines as well as for installing lifts. Of this total, approximately 2100 feet of improved road (Primitive Road A) would be regraded following tree harvest to a narrower width for future use by non-motorized vehicles, cross-country skiers and hikers. The remaining 1300 feet of improved road (FS 18591) would remain improved and all current uses would continue.

Runoff and sediment from temporary roads and road improvements should not reach streams since they are not located near streams except at swale crossings. Swale crossings may produce small amounts of sediment but it is unlikely to be transported to streams except in very minor amounts. Temporary sediment from road and trail improvements on the south side of Runt Mountain should not reach the St. Regis River since there are excellent buffer areas separating these improvements from all streams including the river. This includes improvements on Primitive Roads A and B, Primitive Trail A, and Forest Road 18591. The river-side buffer area is a well-vegetated and nearly-level alluvial terrace with porous soils. Runoff should be absorbed by these porous soils and sediment should be filtered by the current vegetation. The proposed regrading and water bar installation on Primitive Road A may result in minor, short-term sediment delivery to the adjacent wetland during construction and revegetation. However, this regrading and water bar installation would permanently eliminate the current erosion problem and keep all water in the wetland. Culvert extensions on the north side of Runt Mountain may produce minor, short-term sediment delivery to streams during construction and revegetation.

The action alternatives would include regrading and revegetating approximately 2 acres of existing ski runs to improve skiing quality and safety. The action alternatives would also include regrading approximately 2.7 - 6.8 acres of new ski runs, mainly at the bottom of north side ski runs where they feed into the lower lift station (**Figures 2-1, 2-2 and 2-3**). This regrading is necessary to provide a safe and skiable transition from the ski runs to the existing Forest Road 3026.

Regrading of existing and proposed ski runs may result in short-term erosion until revegetation is complete. Sediment from regraded areas could reach seasonal and perennial streams on the north side of Runt Mountain if large precipitation events occur before revegetation is complete. These potential effects are discussed further under Comparison of Alternatives.

The base area septic system would likely not impact surface water and groundwater quality due to its large distance from surface water and groundwater. The nearest surface water is over 1000 feet from the proposed septic system. Groundwater depth at the site has not been investigated and there are no nearby wells. However, groundwater is likely confined to fractures within the underlying bedrock and is expected to be deep below the surface, typical of high mountain settings. The nearest water wells are located over 4000 feet down-gradient from the proposed septic system and would not be affected by the proposed septic system. The design and permitting of the septic system must be approved by the Idaho Department of Health and Welfare, Panhandle Health District, Environmental Health office. The Department of Health and Welfare must determine that water quality would not be adversely affected by proposed septic systems prior to granting a septic permit.

Snow making has not been needed at LPSRA and none is proposed.

The proposed one-acre parking lot would be the only proposed area requiring occasional sanding. Runoff from the proposed parking lot would be diverted into adjacent vegetated areas where sediment and vehicle chemicals would be deposited. No water quality problems are expected from the parking lot.

The overnight and guest services facilities at LPSRA could encourage additional primitive and motorized recreation. There are currently numerous roads near the ski area used for ATV and 4-wheel drive use (see **Chapter 3 – Recreation**). Use of these roads, and uncontrolled ATV/4-wheel drive use, may increase because of the action alternatives. However, the action alternatives include repairs for eroding roads and trails near the LPSRA permit area (see **Chapter 2 – Alternatives**). The IPNF and LNF are also planning to close approximately 4 miles of summer road and trail to motorized wheeled vehicles.

#### Water Quantity and Water Rights

Tree removal (timber harvest) for ski runs, lifts, and roads may have a small effect on water yield but the acreages proposed are too small to cause a detectable change. Removing forest canopy on north aspects generally increases snow accumulation. With more snow available for runoff, there is the potential for greater peak flows when climatic events work together to melt the snow quickly. However, snow compaction by skiers and grooming equipment slows snowmelt. Snow compaction may cancel the effects of timber removal.

Water yield modeling was not conducted for the proposed timber removal on the north and south sides of Runt Mountain because the 85-145 acres of timber removal are too small to result in a detectable change using current models. Potential water yield effects were therefore evaluated in a semi-quantitative manner by comparing the acreage of impact to the acreages in each affected drainage (see project file notes). The maximum timber removal on the north side of Runt Mountain under the action alternatives would be 62 acres. This represents less than one-half of one percent of the South Fork of the Coeur d'Alene drainage area above Willow Creek and Deadman Gulch (cumulative effects analysis area). The maximum timber removal on the south side of Runt Mountain under the action alternatives would be 82 acres. This represents less than one-half of one percent of the St. Regis River drainage from Lookout Pass to the eastern drainage divides of Randolph and Dominion Creeks. An area of concern identified during scoping is the sub-watershed immediately above the Hale Fish Hatchery which includes Bitterroot springs. This watershed includes 387 acres of which 30-62 acres would have timber removal under the action alternatives which represents 8-9% of this sub-watershed.

No new water diversions are anticipated for either action alternative. The existing spring used at LPSRA is expected to supply adequate water for any of the action alternatives. The water right for the spring is for 5.83 gallons per minute, or 8,395 gallons per day. Current use at the ski area during the ski season has been metered as approximately 1,500 gallons per day. As shown in **Table 2-2**, in 8 years the ski area is projected to use about 4224 gallons per day during the winter. Peak use during the winter, when skier visits exceed 500 per day, is expected to be about 5260 gallons per day. Summer use is approximately 370 gallons per day. Summer use in 8 years is expected to be about 4782 gallons per day. Continued use of the spring is projected to meet the water needs of the ski area under the action alternatives. The increases in use because of the action alternatives would require additional or modified water right filings on the same spring source, which is allowed under Idaho and Montana law.

### Floodplains

The only potential floodplain impact would be at the culvert extension site proposed under Alternative B near Bitterroot springs. Culvert extension would eliminate approximately 100 feet of floodplain and riparian area, but the culvert would be sized to prevent effects on flood height, flood frequency or floodplains above or below this site.

### Mitigation Measures and Effectiveness of BMPs

A National Pollutant Discharge Elimination System Permit (NPDES Stormwater Permit) will be required for this project. These permits are required by Federal law and are administered by state authorities. The NPDES permit will require general mitigation measures as well as a detailed erosion control mitigation plan for construction of any new ski area facilities.

All activities would be conducted according to Best Management Practices and INFISH standards (see **Chapter 2, Section 2.5.5** – Features Common to the Action Alternatives, Inland Native Fish Strategy – Standards, Guidelines and Monitoring Requirements). Additional mitigation practices for individual project components are also listed in **Chapter 2 (Section 2.5.5 - Features Common to the Action Alternatives, Mitigation and Monitoring Measures Common to Each Action Alternative)**.

The BMPs used by the Forest Service have proven effective in preventing water quality effects (Montana DNRC 1998, USDA Lolo National Forest 2002, Idaho Department of Environmental Quality 2001). Monitoring during construction would be the primary duty of the District Ranger, with assistance from other officials at the Idaho Panhandle National Forest. A representative of the IPNF would monitor building, parking lot and road construction, acres disturbed, culvert installation and other actions authorized by the Special Use Permit. The IPNF official would inspect culvert installations and ski run construction near streams to establish compliance with BMPs and to identify any additional erosion control activities needed. Follow-up monitoring may also be conducted one year after construction to evaluate the long-term effectiveness of BMPs.

### Consistency with Forest Plan and Regulatory Framework

#### **Consistency With Forest Plans (as amended by the Inland Native Fish Strategy)**

**Inland Native Fish Strategy:** All action alternatives would be consistent with Forest Plans as amended by the Inland Native Fish Strategy. Specific riparian management goals and objectives have been developed, and Riparian Habitat Conservation Areas are defined and delineated. Specific features (standards and guidelines) have been incorporated into the alternatives as described in **Chapter 2 - Features Common to All Action Alternatives**.

All action alternatives include stand treatments that would be initiated by the harvesting of timber. Standards and guidelines from Inland Native Fish Strategy were used specifically to protect water and aquatic biota within the project area (**Chapter 2 - Features Common to All Alternatives**).

A. Features Designed to Protect Aquatic Resources. Standard widths for defining interim Riparian Habitat Conservation Areas were utilized without modification. The road management *standards and guidelines* were applied only to roads used or affected by the proposed project activities (timber sale, obliterated, closed or used for slash disposal or reforestation). The road management *objectives* were applied only within the project area boundary, and only on those roads used for the harvesting or hauling of timber.

The Forest Plan identifies several standards related to fisheries. Although each is superceded by one or more of the standards and guidelines under the Inland Native Fish Strategy, information has been provided below describing how fisheries resources would be protected under the proposed activities in the LPSRA. The following addresses consistency with amended Forest Plan standards for water (Inland Native Fish Strategy Record of Decision, p. A-12 and Forest Plan, page II-33); and Forest Plan standards for fish (Forest Plan, page II-29 through II-31).

*Watershed and Habitat Restoration (WR-) 1:* All action alternatives include watershed restoration activities consistent with INFS Standard WR-1.

**Watershed and Habitat Restoration (WR-) 2:** The Forest Service has coordinated with the U.S. Fish and Wildlife Service, the Army Corps of Engineers, the Idaho Department of Environmental Quality and all other appropriate agencies to achieve consistency with INFS Standard WR-2.

**Water Standard 1:** All action alternatives are consistent with Water Standard 1 since they would not significantly impair the long-term productivity of the watershed based on evaluations of water yield, wetlands, drainage, erosion and BMP effectiveness.

**Water Standard 2:** All action alternatives are consistent with Water Standard 2 since they would maintain or reduce total sediment in the project area. Application of BMPs in all action alternatives would ensure consistency with state water quality standards.

**Water Standard 3:** All action alternatives are consistent with Water Standard 3 since they would implement project level standards and guidelines for water quality contained in the Best Management Practices including those defined by State regulation or agreement between the State and Forest Service such as:

- Idaho Forest Practices rules.
- Rules and Regulations and Minimum Standards for stream channel alterations.
- Best Management Practices for road activities.

**Water Standard 4:** This standard does not apply since there are no effects on streamflows from action alternatives.

**Water Standard 5:** This standard would not apply to because there are no public water systems, and no water rights or reservations that would conflict with flows.

**Water Standard 6:** This standard will be met since BMPs would be applied under all action alternatives to achieve consistency with this standard.

**Water Standard 7:** Modeling was evaluated and determined not needed to evaluate potential hydrologic impacts due to the small areas of disturbance, distances from streams and use of INFISH/BMP mitigation techniques. Evaluations of water yield effects were made based on watershed acreages, and potentially impacted acreages, field data, monitoring results, continuing research and professional judgment.

**Clean Water Act and Water Quality Limited Listings:** The action alternatives would comply with all Clean Water Act Provisions and Water Quality Listings since no 303(d) stream



standards would be exceeded due to the small potential for sediment to reach streams and the documented effectiveness of BMPs at other recent projects. The Forest Service will adhere to agreements with the State of Idaho to implement Best Management Practices (BMPs) or Soil and Water Conservation Practices for all management activities to meet the objectives for Forest Practices.

**National Forest Management Act:** The National Forest Management Act requirements would be met since there would be little or no change to habitat or populations. Overall habitat diversity and cover complexity would be maintained at current or higher levels.

**Endangered Species Act, Section 7:** A Biological Assessment was prepared for all Threatened and Endangered species (Project Files, "Biological Assessments and Evaluations"). Concurrence was obtained from the US Fish and Wildlife Service on the BA/BE which concluded that none of the action alternatives would impact threatened and endangered species.

### **Cumulative Effects**

The area of cumulative effects on the Montana side is the 6<sup>th</sup> Category watershed that extends from Lookout Pass approximately 8 miles east to the drainage divide east of Randolph Creek. This area is approximately 25,000 acres and includes the St. Regis River drainage above the eastern Randolph Creek and Dominion Creek divides. No other projects are approved or proposed within the cumulative effects area on the Montana side.

The area of cumulative effects on the Idaho side extends beyond the immediate 6<sup>th</sup> Category watershed boundary to the first tailings impoundment along the South Fork of the Coeur d'Alene River. Downstream from the first tailing impoundment, heavy metal pollution and streambank alterations have dramatically changed the physical and chemical characteristics of the watershed. The analysis area for the action alternatives begins at Lookout Pass and extends to the western drainage divides of Willow Creek and Deadman Gulch, an area of approximately 15,000 acres.

The only other approved or proposed project in the cumulative effects area was the Snowstorm Canyon Project, which included 507 acres of timber harvest in the 1990s (Williams, 1992). These harvest units were scattered throughout the LPSRA cumulative effects area in Idaho. The 507 acres of timber harvest combined with the 60-acre maximum proposed at Lookout Pass represent approximately 3.8% of the cumulative effects evaluation area on the Idaho side.

The maximum timber removal on the south side of Runt Mountain under the action alternatives would be 82 acres. This represents less than one-half of one percent of the cumulative effects analysis area in Montana (St. Regis River drainage from Lookout Pass to the eastern drainage divides of Randolph and Dominion Creeks).

The Jeep Jamboree is a yearly activity that occurs on Forest roads and primitive trails of the cumulative effects area. However, the Jamboree provides education regarding decreasing impacts from wheeled motorized use. The event has received the USDA Forest Service "National Tread Lightly Award" and is not expected to increase sediment yield to streams in the cumulative effects area. The combined effect of the Jeep Jamboree and the action alternatives is not expected to adversely affect water quality.

No other projects are proposed in the cumulative effects area. No detectable change in water yield is expected due to either action alternative since less than one-half of one percent of these drainage areas would be impacted.

### Water Quality Cumulative Effects

Sediment from road construction and reconstruction, winter sanding, timber harvest, and uncontrolled ATV/4-wheel drive use has affected water quality in both rivers. Metals from hard rock mines have affected water quality in the South Fork Coeur d'Alene River. Existing erosion and sedimentation problems on roads near the ski area are discussed in **Chapter 3 – Soil**. Existing road and ATV/4-wheel drive use is discussed in **Chapter 3 – Recreation**. For this project and future projects, water quality would be protected by Forest Service requirements for implementing BMPs, mitigation measures, and INFISH standards (see **Chapter 2- Inland Native Fish Strategy**). Water quality on nearby Montana Forest land would be protected the Montana Land and Natural Streambank Law and the Montana Streamside Management Zone Law (SMZ) standards. No additional nutrient sources other than the proposed LPSRA sewage system are anticipated in the vicinity. Nutrients from the proposed septic system are not expected to be detectable in surface or groundwater. A variety of other state and federal laws would provide review and regulation over future sediment and nutrient sources. The predicted water quality impacts from the action alternatives are so small and isolated that they are unlikely to contribute detectable cumulative effects to water quality.

Since no other projects are currently proposed within the cumulative effects area on the Montana side, no water quality cumulative effects have been identified related to the action alternatives on the Montana side.

The only other recent project on the Idaho side of the cumulative effects area was the Snowstorm Canyon Project, which included 507 acres of timber harvest in the 1990s. The 507 acres of timber harvest combined with the 60-acre maximum proposed at Lookout Pass represent approximately 3.8% of the cumulative effects evaluation area on the Idaho side. Monitoring for the Snowstorm Canyon Project (Williams, 1992) determined that water quality problems did not occur from the project because additional mitigation measures were implemented, BMPs were used, and buffer strips were created between timber harvest sites and streams.

### Water Quantity Cumulative Effects

Since no other projects are currently proposed within the cumulative effects area on the Montana side, no water quantity cumulative effects have been identified related to the action alternatives on the Montana side.

On the Idaho side, the Snowstorm Canyon Project Environmental Assessment (IPNF, 1991) predicted the potential for very small, short-term water quantity impacts due to this timber harvest project. Monitoring results (Williams, 1992) indicated that impacts to water quality and quantity were even less than predicted in the EA because of the additional mitigation measures implemented. The project did not produce any serious effects on streams or water quantity from this harvest activity. The additional 62 acres of timber harvest (maximum) at Lookout Pass is so small in relation to the size of the watershed that no detectable change in water quantity is likely. Since no other projects are currently proposed within the cumulative effects area, no water quantity cumulative effects have been identified related to the action alternatives. For this and future projects, water quantity would be protected by Forest Service requirements for implementing BMPs, mitigation measures, and INFISH standards (see **Chapter 2- Inland Native Fish Strategy**).

### Comparison of Alternatives

**Table 4-2** provides a comparison of potential effects on water resources from each alternative. No change in water quality, water yield, and water use would occur under Alternative A, the No Action Alternative. Differences in the action alternatives are discussed below. The impacts of the action alternatives on water resources appear to be consistent with the management goals and standards of the Forest Plans and other regulatory framework.

**Table 4-2: Comparison of Alternatives – Water Resources**

Issue	Alternative A - No Action	Alternative B	Alternative C	Alternative D
Water Quality- potential sediment increase	No change	Potential for a small, temporary increase in sediment. Potential is higher than Alternatives C, D, E (more disturbance for timber removal, temporary roads and regrading).	Potential for a small, temporary increase in sediment. Potential is lower than Alternative B (less disturbance for timber removal, temporary roads and regrading).	Potential for a small, temporary increase in sediment. Potential is lower than Alternatives B and C (less disturbance for timber removal, temporary roads and regrading).
Water Quality – potential short-term sediment increase at temporary and permanent culvert installations	No change	5 temporary and no permanent culverts	3 temporary and 2 permanent culverts	3 temporary and 1 permanent culverts
Water Quality – potential sediment increase at short-term erosion at existing culvert extensions	No change	100 feet of culvert extension	60 feet of culvert extension	60 feet of culvert extension
Water Quality – potential sediment increase at short-term erosion at regrading sites for existing and new runs	No change	8.8 acres of regrading	6.4 acres of regrading	4.7 acres of regrading
Water Quality Mitigation - road upgrade for timber harvest followed by reconstruction into trail for hiking, biking and cross-country skiing (Primitive Road A)	No change	2100 feet	2100 feet	2100 feet
Water Quality Mitigation - road upgrade for timber harvest including improved erosion control features (Forest Road 18591).	No change	1300 feet	1300 feet	1300 feet
Effect on Springs	No change	100-foot culvert extension below Bitterroot Spring	Possible trail construction above Bitterroot Springs (Snowmobile Reroute #1)	No change
Water Yield	No change	Potential for a very small increase (too small to model) (<1%)	Potential for a very small increase (too small to model) (<1%)	Potential for a very small increase (too small to model) (<1%)

### Comparison of Alternatives - Water Quality

Each of the action alternatives would mitigate drainage and sedimentation problems from existing roads and trails on the south side of Runt Mountain. During and shortly after construction and road reclamation, there is a potential for a small, temporary increase in sediment mobilization from each of the action alternatives. Potential water quality impacts from sediment are lower under Alternative D than the other action alternatives, due to a smaller area of disturbance for timber removal, temporary roads, culvert extensions and slope regrading. Downstream impacts to water quality are not expected under any of the action alternatives because:

- the area of disturbance is relatively small;
- almost all disturbances are located away from streams and are separated by effective vegetated buffer areas which would prevent sediment reaching streams;
- the number of culvert installations is low;
- most culvert installations are temporary and are located in headwater swales and not streams;

- upgrades and reconstruction of Primitive Road A (2100 feet), Forest Road 18591 (1300 feet), Primitive Trail A and Primitive Road B (11,400 feet) would reduce or eliminate existing erosion and sedimentation problems;
- the specific mitigation measures proposed for this project, combined with the BMPs and the INFISH standards; and
- inspection of all activities by IPNF personnel to establish compliance with mitigation measures, BMPs and INFISH standards and to identify any additional erosion control activities needed.

#### Comparison of Alternatives - Water Quantity

Potential impacts on water yield are lower under Alternative D than the other action alternatives because of the smaller acreage of timber removal. However, increases in water yield are estimated to be very slight or undetectable for all action alternatives (less than one percent).

### **4.2.4 Air Quality**

#### ***Alternative A - The No-Action Alternative***

The No Action Alternative would not change the existing condition described in **Chapter 3 - Air Quality**.

#### ***Effects Common to the Action Alternatives***

##### **Direct, Indirect, and Cumulative Effects**

##### **Slash Burning**

As stated in **Chapter 3 - Air Quality**, open burning in Montana and Idaho is regulated by the Montana and Idaho Departments of Environmental Quality (MDEQ and IDEQ). Major prescribed burners formed the Montana/Idaho Airshed Group that provides daily air quality predictions and restrictions. Prior to burning slash, the Forest Service must develop burn plans in compliance with the US EPA "Interim Air Quality Policy on Wildland and Prescribed Fires". The burn plans must include: emission reduction actions; smoke dispersion evaluations; public notification; public exposure reduction; and air quality monitoring.

For the action alternatives, slash would be burned from tree clearing on the north and south sides of Runt Mountain. Piles of slash would be burned according to Best Management Practices and guidance from the Montana/Idaho Airshed Group. Burning impacts would be of short duration, occurring during times deemed to have minimum impact to air quality by the Airshed Group. Decisions to burn would be evaluated daily, based upon the burning restriction issued by the Airshed Group coordinator and expected local smoke dispersion conditions.

Slash burning would be conducted during the spring or fall under weather conditions when smoke dispersion forecasts are favorable and air quality standards would not be violated. Despite these precautions, some smoke-related impacts would occur within the proposed expansion area and surrounding area. Plumes of smoke would be visible from several of the communities that surround the expansion area. Transport winds would carry and disperse smoke during the day, but some drift smoke may settle in the immediate vicinity of the burn unit and in some of the surrounding drainages. This drift smoke would be most noticeable in the evening and the morning following the burn. The effect would generally be a light to moderate

haze in the air. The haze would usually last until the middle of the day following the burn, when daytime winds would disperse the residual smoke.

The prevailing winds in the proposed expansion area are from the west and southwest. The residences most likely to be affected by smoke are the downwind communities and rural residents east and northeast of the expansion area in northwestern Montana. The nearest communities in northwestern Montana are De Borgia, Haugan, and Saltese. The towns of Mullan and Wallace, Idaho are west of the expansion area and usually not downwind during the most common weather patterns.

#### Traffic Emissions

Traffic emissions occur within the study area from vehicle tailpipes and road dust. Most of the traffic emissions occur along Interstate 90. An immeasurable amount of traffic emissions occur along the 1000-foot access road to Lookout Pass from Interstate 90. As discussed below, the action alternatives are not expected to increase emissions from additional traffic by a statistically measurable amount. In addition, an increase in traffic on Interstate 90 may occur with or without the proposed expansion of the ski area.

A year-round average of about 5,500 vehicles per day traverse Lookout Pass over Interstate 90 from Saltese, Montana, to Mullan, Idaho (MDT, 1999 and ITD, 1999). In comparison, an average of about 225 cars per day travel to LPSRA when the ski area is open (Phil Edholm, 7/17/00, pers. comm.). Implementing any one of the action alternatives is expected to increase ski area use from 281 skiers per day 4 days per week to about 333 skiers per day 6 days per week. This increase would represent approximately 42 additional vehicles (about 267 total) traveling Interstate 90. Ski traffic (and car emissions) would therefore increase on Interstate 90 by a very small amount (about 0.8%).

Traffic to the ski area during the summer is currently about 128 cars per day. About 59 cars per day are drawn by the bicycle concession and 69 cars are drawn to the visitor center. Most of the visitor center use is by people traveling through the region anyway, not drawn specifically by the visitor center. The visitor center use is anticipated to increase, but not draw additional vehicles to the region. The increased use of the bicycle concession, overnight lodging, and RV use is expected to draw additional visitors to the LPSRA. This summer use is expected to bring about 75 additional cars per day along Interstate 90 in 8 years, an increase in emissions of about 1.4%. The increase in traffic from vehicles during construction is expected to be less than 36 cars per day, or a 0.6% increase in traffic emissions.

#### Snowmobile Emissions

Public comments on the proposed action have mentioned conflicts between cross-country skiers and snowmobiles near Lookout Pass. Cross-country skiers are offended by snowmobile noise and exhaust emissions. An assessment of impacts to recreation (see **Chapter 4 – Recreation**) indicated that improved overnight and parking facilities at LPSRA may create a small incremental increase snowmobile use near Lookout Pass. Accessibility to the Montana/Idaho backcountry may also improve for snowmobiles under Alternative C if the St. Regis Pass alternative Snowmobile Reroute #1 is constructed. The amount of this increase in use and the resulting increase in snowmobile emissions is difficult to predict. Approximately 100 snowmobiles per weekend day traverse or start from Lookout Pass and travel along the groomed snowmobile on FS 4208 and 3026 (Doug Driden, MDFWP, personal communication, 9/27/01). A portion of these sleds also access the St. Regis Pass area and Montana/Idaho backcountry.

Snowmobile emissions within a given area will vary, based upon numerous factors such as the number of machines, the number of hours used, the type and engines and fuels used, engine speed, elevation, ambient temperature, and how well the engines are tuned. Emission studies indicate that on average, a snowmobile operated for 4 hours emits 19.84 lbs of hydrocarbons (HC), 54.45 lbs of carbon monoxide (CO), 0.06 lbs of nitrogen oxides (NO<sub>x</sub>) and 0.20 lbs of particulate matter (PM) (USDI NPS, 2000). Using this data, an estimate of emissions from snowmobiles traversing Lookout Pass was completed. The estimate concluded that if all of the snowmobiles traversing Lookout Pass spent four hours in the St. Regis Basin and nearby backcountry, these snowmobiles would emit about 1984 lbs of HC, 5445 lbs of CO, 6 lbs of NO<sub>x</sub>, and 20 lbs of PM. The resulting air quality in the area would depend on meteorology, where cold, stable atmospheric conditions with low wind speeds allow less dispersion of pollutants.

Air quality monitoring has not occurred at Lookout Pass, but comparisons can be made with snowmobile monitoring at Yellowstone Park (USDI NPS, 2000). Monitoring has been conducted at the West Yellowstone park entrance, where it is common to have 700 to 2000 snowmobiles enter the park each day. Monitoring results indicated that National Ambient Air Quality Standards (NAAQS) have been exceeded for CO by about 50% in areas immediately adjacent to entrance station booths where snowmobiles accumulate and idle prior to entering the park. Monitoring for PM indicated that NAAQS standards for PM<sub>2.5</sub> were exceeded by 20% at park entrance stations. However, concentrations of pollutants rapidly decreased within short distances of the entrance stations to levels below the NAAQS standard. The Yellowstone Park monitoring results, compared to the situation at Lookout Pass, imply that the emissions from the 100 snowmobiles that cross Lookout Pass probably do not exceed the NAAQS standards because of the relatively low number of snowmobiles (compared to the Yellowstone studies), their mobile nature (lack of concentration and idling), and their dispersed location over the trail. The incremental increase in snowmobile use because of the action alternatives is not expected to increase air pollution in the Lookout Pass area to levels above the NAAQS. However, other recreation users, such as cross-country skiers, will continue to experience snowmobile exhaust for short periods after snowmobiles pass skiers on the trail, or when snowmobiles are idling in the LPSRA parking lot.

#### Class I Areas

No designated wilderness areas or national parks with Class I designations are located within the 30 miles of Lookout Pass. The nearest Class I area, the Cabinet Mountains Wilderness, is 35 miles northeast of Lookout Pass. Any incidental emissions that enter Class I areas from slash burning or increased vehicle traffic to LPSRA would not be enough to violate air quality standards, due to the relatively small amount and short duration of the slash burning and vehicle traffic.

#### Non-Attainment Areas

The nearest air quality non-attainment area is in the Pinehurst area just east of Kingston, Idaho, 27 miles west of Lookout Pass. The Pinehurst area would not be subject to any air quality impacts from the action alternatives because of its distance from the proposed expansion area and its location up-wind from Lookout Pass. No non-attainment areas are within 50 miles downwind of the expansion area.

### Cumulative Effects

Two other projects are proposed in the cumulative effects area: 1) the North Fork St. Joe River Project (IPNF, 1999); and 2) the Touch America Billings to Yakima Fiber Optic Project (TA, 2000). The EIS on the North Fork St. Joe Project determined that the proposed burns would result in less smoke produced per acre than wildfire and reduce the wildfire risk on those acres treated. All the proposed prescribed burning would be over a period of five or six years and produced only when atmospheric conditions are judged favorable and allowed by regulation.

The Touch America Billings to Yakima Fiber Optic Project would include placement of an underground fiber optic cable along FS 4208 in Montana and the right-of-way of Interstate 90 in Idaho. The environmental analysis for the project (TA, 2000), states that fugitive dust generated during construction would be controlled by watering or other appropriate dust-abatement measures. Vehicles and equipment used during construction would be properly maintained to minimize exhaust emissions.

Cumulative impacts of burning emissions are managed by the Montana/Idaho Airshed Group to ensure that air quality standards are met. Airshed conditions are monitored, permits are required (in Montana only), and burning restrictions are issued to protect air quality. All Forest Service burn projects, including those for the North Fork of the St. Joe River and Lookout Pass action alternatives, would be coordinated with the Airshed Group to ensure that air quality standards are met.

The Jeep Jamboree is a yearly event that occurs during two days in August on Forest roads and primitive trails of the cumulative effects area. An average of 41 vehicles travel the trails and roads in the IPNF and LNF. However, the Jamboree provides education regarding decreasing impacts from wheeled motorized use. The event has received the USDA Forest Service "National Tread Lightly Award" and is not expected to measurably increase dust or fuel emission particulate in the cumulative effects area. The combined effect of the Jeep Jamboree and the LPSRA action alternatives is not expected to adversely affect air quality.

The action alternatives in combination with other proposed projects and activities in the cumulative effects area are expected to create an immeasurable increase in particulate when compared to the effects of other activities contributing particulate, such as logging and mining, road dust on highways after sanding, dispersed recreation on public land, and access to private land.

### **Consistency with Forest Plan and Regulatory Framework**

All action alternatives would comply with existing federal and state air quality regulations and with the two forest plans since increased traffic emissions and burning would not violate applicable state laws and since burning would be conducted under the directives of the Montana/Idaho Airshed Group.

### **Comparison of Alternatives**

No change in air quality is expected under Alternative A, the No Action Alternative. A comparison of the various alternatives indicates that impacts to air quality would be about the same for each of the action alternatives. Alternative B would require more timber harvest and slash removal than the other alternatives. Smoke from slash burning would be mitigated through Best Management Practices. This amount of burning, when completed using BMPs

and guidance from the Montana/Idaho Airshed Group, is expected to comply with NAAQS standards established by EPA.

The improved facilities at LPSRA are expected to create an incremental increase in snowmobile use (and resulting emissions) near Lookout Pass. Snowmobile Reroute #1 for Alternative C would also encourage use of St. Regis Pass and the Montana/Idaho state line backcountry. The predicted incremental increase in snowmobile use (and resulting emissions) from the action alternatives is not expected to exceed NAAQS standards.

The impacts of the action alternatives on air quality appear to be consistent with the management goals and standards of the Forest Plans and other regulatory framework.

## **4.3 BIOLOGICAL ENVIRONMENT**

### **4.3.1 Fisheries**

#### ***Alternative A - The No Action Alternative***

Under the No Action Alternative, LPSRA would not be expanded and none of the action alternatives would take place. Therefore, there would be no impact to fisheries resources. The current conditions and trends described in **Chapter 3 – Fisheries**, would remain as they are now.

#### ***Effects Common to the Action Alternatives***

##### **Direct, Indirect, and Cumulative Effects**

None of the action alternatives would directly affect fish-bearing streams. The nearest fish-bearing stream is the St. Regis River located 400 feet from the proposed new runs and lift station on the south side of Runt Mountain. The next closest fish-bearing stream is the South Fork of the Coeur d'Alene River located just over 0.5 mile from the new runs and lift station on the north side of Runt Mountain. Neither action alternative would directly affect these waters.

Indirect and cumulative impacts to fisheries resources could occur if any of the action alternatives were to increase: sediment in fish bearing streams, water temperatures, or channel instability. Sediment can affect adult salmonids by changing behavior, reducing available habitat, increasing stress, and reducing food supply. Salmonid fishes will avoid areas with turbid water. In streams where turbidity is elevated over a long distance or for a long period of time, this can result in reaches of stream devoid of fish (Waters, 1995). In addition, high levels of suspended sediment can result in the loss of visual capability, leading to reduced feeding and depressed growth rate (Waters, 1995). High levels of sediment can deplete benthic invertebrate populations, reducing the available food supply for fish (Waters, 1995). Sediment can also fill pools and blanket structural cover, reducing the available summer habitat for adult salmonids (Waters, 1995).

Direct fish mortality from suspended sediment has been documented, but generally only at either very high levels of suspended sediment or a long duration of increased suspended sediment. It seems likely that fish have evolved behavioral or physiological adaptations to temporary high concentrations of suspended sediment in order to survive short-term conditions caused by natural floods (Waters, 1995). The exact levels of sediment at which sub-lethal effects occur are unknown. It is known that both the concentration of sediment and the duration



of exposure affect the response of the fish (Newcombe and MacDonald, 1991). For this reason, it is best to make every effort to reduce both the amount of sediment produced and the duration of the sediment increase.

Water temperature is a critical habitat component for both bull trout and westslope cutthroat trout. Bull trout have repeatedly been associated with the coldest stream reaches within basins. Westslope cutthroat trout are also known as a cold water species, intolerant of human-induced water temperature increases.

Channel instability influences the survival of young bull trout. High bed load movement and low channel stability are associated with low numbers of bull trout elsewhere in the Coeur d'Alene River drainage (Cross, 1992 cited in Rieman and McIntyre, 1993). Stable channels and relatively stable stream flows favor the persistence of bull trout populations (Rieman and McIntyre, 1993).

The St. Regis River is about 400 feet from the lower lift terminal on the south side of the ski area. Therefore, this portion of the proposed action is outside the RHCA (riparian habitat conservation area) for the St. Regis River.

An existing road (FS 18591) is within the St. Regis River RHCA for a small portion of its length. This road would be improved with grading and water bars to minimize erosion and sedimentation. Although 1300 feet of road would be improved, less than 250 feet of this length is within the St. Regis River RHCA. The section of road within the RHCA is upstream (west) of proposed Snowmobile Reroute #2. Road improvements would follow INFISH guidelines and would not impair attainment of riparian management objectives. In fact, improvements in road drainage may enhance attainment of riparian management objectives.

Part of the road improvements would include upgrading Primitive Road A for use in tree removal. This road would then be reconstructed into a trail for cross-country skiing, hiking and mountain biking. Water bars would be installed where it intersects a wetland on the south side of Runt Mountain (**Figures 2-1, 2-2 and 2-3**). This regrading would be about 1000 feet north of the St. Regis River. Drainage from the wetland is partially blocked by the existing road and water currently flows down the road. Regrading would stop the road erosion, but this water seeps into the ground and does not reach the St. Regis River anyway. Regrading forest Road 18591 and installing water bars would reduce erosion and sediment transport into the adjacent vegetated area. Regrading Primitive Trail A and Primitive Road B would also reduce erosion and sediment transport into adjacent vegetated areas.

A snowmobile trail would be constructed around the base of the ski area on the south side of Runt Mountain (Snowmobile Reroute #2). Trees would be cut to allow snowmobile access in the winter, but no road-building equipment would be used to grade the trail since it would not be used outside the winter months. Therefore, there would be no ground disturbance other than tree removal. Measurements made by Land & Water Consulting in February 2000 found that this trail would be located just outside the St. Regis River RHCA, approximately 300 feet from the stream at the closest point (B. Dutton, personal communication, Land & Water Consulting, February 2000). This activity is in compliance with INFISH because it would not retard attainment of riparian management objectives. There would continue to be a timbered slope of moderate steepness (about 5 – 10% slope) between the St. Regis River and the snowmobile trail. The trees that would be cleared are far enough from the north bank of the stream that there will be no impact to stream shading or large woody debris recruitment. There will not be a risk that the river will change course into this cleared area because of the slope and distance separating the river from the trail.

Under a recent Forest Service directive, approximately 4 miles of existing primitive roads and trails will be removed from summer motorized wheeled vehicle use. Some of the erosion and sedimentation concerns on these roads and trails would be mitigated under the action alternatives (see **Table 2-1**).

### **Indirect and Cumulative Effects - Alternative B**

The Bitterroot Springs located on the north side of Runt Mountain have a perennial flow (**Figures 2-1, 2-2 and 2-3**). These springs create an unnamed tributary to the South Fork of the Coeur d'Alene River. Under INFISH, this tributary is a Category 2 water. The RHCA for a Category 2 water is the stream and area on either side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year flood plain, or to the outer edges of riparian vegetation, or to a distance equal to one site potential tree, or 150 foot slope distance (300 feet, including both sides of the stream channel), whichever is greatest.

Under Alternative B, a new run and lift would cross this unnamed tributary. The existing culvert (**Figure 2-1**) would be extended 100 feet to accommodate the proposed new run and lift station. A section of riparian vegetation along the stream approximately 100 feet in length would be removed. Potential impacts of riparian vegetation removal include loss of stream shading and possible water temperature increases, increased erosion and sedimentation, loss of large woody debris, and decreased channel stability. However, based on the results of the hydrology analysis, impacts to water quality and quantity are expected to be very small (see **Chapter 4 - Water Resources**). Sediment increases would be largely limited to a temporary increase during culvert installation. Water yield increases, if any, would be too small to model (<1%). As a result, no indirect impacts to fisheries resources are anticipated.

There is a 12-acre wetland on the south side of the proposed expansion area (**Figures 2-1, 2-2 and 2-3**). This wetland does not have a surface hydrologic connection to the St. Regis River. Wetlands greater than one acre are Category 3 under INFISH. The RHCA for a Category 3 water is the body of water or wetland and the area to the outer edges of riparian vegetation, or to the extent of the seasonally saturated soil, or to the extent of moderately and highly unstable areas, or to a distance equal to one site potential tree, or 150 foot slope distance from the edge of the wetland, whichever is greatest.

Alternative B includes trimming vegetation for a new ski run through this wetland. Approximately 8 acres of wetland would have trees removed and brush trimmed to allow skier access. Given the lack of flow between the wetland and the river, the relatively flat topography, the implementation of BMPs, and the permeable soils, it is doubtful that any impact to fisheries would occur.

Alternative B also includes constructing 1.7 miles of temporary roads and installing 5 temporary culverts. These activities may result in a slight increase in erosion and sedimentation during construction. However, none of the temporary roads or culverts are anywhere near established stream channels (see **Chapter 4 - Water Resources**). Water quality and quantity impacts to fish bearing waters would be small and largely limited to the peak runoff season when some sediment could be transported downstream.

There would be some regrading of slopes to accommodate skiers near Forest Road 3026 on the north side of Runt Mountain. A small area on the south side of Runt Mountain would also be regraded to eliminate side slopes. Regrading is expected to affect about 6.8 acres of new ski

runs and 2 acres of existing runs for Alternative B. Best Management Practices would be applied to these areas including immediate revegetation and erosion control. Small, temporary increases in erosion may occur during and immediately after construction. However, given the distance to fish bearing streams (in all cases over 2000 feet), impacts to fisheries should be minimal.

Alternative B includes clearing trees from 145 acres for new ski runs and other facilities (**Table 2-1**). About 82 acres would be cleared in the St. Regis River drainage and 62 acres in the South Fork Coeur d'Alene River drainage. Clearing in the St Regis River drainage would affect such a small percentage of the watershed that changes in water yield are too small to model and would likely be undetectable (<1% change in the 5<sup>th</sup> code HUC), see **Chapter 4** - Water Resources). Water quality may have very small, temporary increases in sediment yield during culvert installation but would otherwise be unaffected.

Clearing in the South Fork Coeur d'Alene River drainage would affect such a small percentage of the watershed that changes in water yield are too small to measure (<1% change in the overall 5<sup>th</sup> Category watershed, see **Chapter 4** - Water Resources). Sediment yield and water quality may have very small, temporary increases during culvert installation but would otherwise be unaffected.

The area of cumulative effects on the Montana side is the 6<sup>th</sup> Category watershed that extends from Lookout Pass approximately 8 miles east to the drainage divide east of Randolph Creek. This area is approximately 25,000 acres and includes the St. Regis River drainage above the eastern Randolph Creek and Dominion Creek divides. No other projects are approved or proposed within the cumulative effects area on the Montana side.

The area of cumulative effects on the Idaho side extends beyond the immediate 6<sup>th</sup> Category watershed boundary to the first tailing impoundment along the South Fork of the Coeur d'Alene River. Downstream from the first tailing impoundment, heavy metal pollution and streambank alterations have dramatically changed the physical and chemical characteristics of the watershed. This analysis area begins at Lookout Pass and extends to the western drainage divides of Willow Creek and Deadman Gulch, an area of approximately 15,000 acres.

The only recent project approved in the cumulative effects area was the Snowstorm Canyon Project, which included 507 acres of timber harvest north of Lookout Pass in the 1990s. These harvest units were scattered throughout the LPSRA cumulative effects area. These 507 acres of timber harvest combined with the 60-acre maximum proposed at Lookout Pass represent approximately 3.8% of the cumulative effects evaluation area on the Idaho side.

The Jeep Jamboree is a yearly event that occurs during two days in August on Forest roads and primitive trails of the cumulative effects area. An average of 41 vehicles travel the trails and roads in the IPNF and LNF. However, the Jamboree provides education regarding decreasing impacts from wheeled motorized use. The event has received the USDA Forest Service "National Tread Lightly Award" and is not expected to affect water quality in the cumulative effects area. The combined effect of the Jeep Jamboree and the LPSRA action alternatives is not expected to adversely affect water quality.

The Touch America Fiber Optic Project is the only project proposed within the cumulative effects area. In the vicinity of Lookout Pass, the fiber optic cable has been installed by cable plow into the old railroad bed on the east side of Lookout Pass. The cable would go into and into the interstate highway fill on the west side of the pass. Potential impacts to water quality from this activity are predicted to be very minor (TA, 2000). The combined effect of the

proposed LPSRA action alternatives with the Touch America project is not expected to adversely affect water quality or fishery resources.

The maximum timber removal on the south side of Runt Mountain under the LPSRA action alternatives would be 82 acres for Alternative B. This represents less than one-half of one percent of the cumulative effects analysis area in Montana (St. Regis River drainage from Lookout Pass to the eastern drainage divides of Randolph and Dominion Creeks). No detectable change in water yield is expected due to either action alternative since less than one-half of one percent of these drainage areas would be impacted. As a result, no cumulative impacts to fisheries resources are anticipated.

#### **Indirect and Cumulative Effects – Alternative C**

Under Alternative C, one of the potential routes for Snowmobile Reroute #1 would cross the unnamed tributary upstream of the Bitterroot Springs (**Figure 2-2**). This ephemeral draw above the springs would be crossed by a culvert if Snowmobile Reroute #1 is constructed in this location. A section of riparian vegetation along the stream approximately 25 feet in length would be removed. Potential impacts of riparian vegetation removal include loss of stream shading and possible water temperature increases, increased erosion and sedimentation, loss of large woody debris, and decreased channel stability. However, based on the results of the hydrology analysis, impacts to water quality and quantity are expected to be very small (see **Chapter 4 - Water Resources**). Sediment increases would be largely limited to a temporary increase during culvert installation. Water yield increases, if any, would be too small to model (<1%). As a result, no indirect impacts to fisheries resources are anticipated.

An existing culvert under the railroad grade (FS 3026) on the north side of the ski area would be extended 60 feet to make room for the lower lift terminal and ski run. This culvert is not located on a perennial stream or in an area where fish would be expected to occur. Although culvert installation at this site is expected to produce a small amount of sediment during construction, no impacts to fish bearing streams are likely to occur.

Ski run construction would affect only 0.7 acres of the 12-acre wetland on the south side of the proposed expansion area. Under this alternative, the configuration of runs and ski lifts was modified to avoid most of this sensitive area (**Figure 2-2**).

Alternative C also involves construction of 1.2 miles of temporary roads and the installation of 3 temporary culverts. These activities may result in a slight increase in erosion and sedimentation during construction. However, none of the temporary roads or culverts would be near stream channels (see **Chapter 4 - Water Resources**). Water quality and quantity impacts to fish bearing waters would be small, if any.

There would be some regrading of slopes to accommodate skiers near the abandoned railroad grade (FS 3026) on the north side of Runt Mountain. A small area on the south side of Runt Mountain would also be regraded to eliminate side slopes. Regrading is expected to affect about 4.4 acres of new ski runs and 2 acres of existing runs for Alternative C. Best Management Practices would be applied to these areas including immediate revegetation and erosion control. Small, temporary increases in erosion may occur during and immediately after construction. However, given the distance to fish bearing streams (in all cases over 2000 feet), impacts to fisheries should be minimal.

Overall, Alternative C includes the clearing trees from 91 to 93 acres for new ski runs and other facilities (**Table 2-1**). About 55 acres would be cleared in the St. Regis River drainage and 36 to

38 acres in the South Fork Coeur d'Alene River drainage. Clearing in the St Regis River drainage would affect such a small percentage of the overall 5<sup>th</sup> code HUC that changes in water yield are too small to model and would be undetectable (<1% change, see **Chapter 4 - Water Resources**). Sediment yield and water quality may have very small, temporary increases during culvert installation but would otherwise be unaffected.

Clearing in the South Fork of the Coeur d'Alene River drainage would affect such a small percentage of the overall 5<sup>th</sup> code HUC that changes in water yield are too small to model and would not be detectable (<1% change, see **Chapter 4 - Water Resources**). Water quality may have very small, temporary increases in sediment yield during culvert installation but would otherwise be unaffected.

#### **Indirect and Cumulative Effects – Alternative D**

Alternative D does not affect the unnamed tributary downstream or upstream from Bitterroot Springs on the north side of the proposed expansion area. An existing culvert under the railroad grade (FS 3026) on the north side of the ski area would be extended 60 feet to make room for the lower lift terminal and ski run. A new culvert would also be installed near the existing culvert to pass drainage from an ephemeral draw (**Figure 2-3**). These culverts are not located on perennial streams or in an area where fish would be expected to occur. Although culvert installation is expected to produce a small amount of sediment during construction, no impacts to fish-bearing streams are likely to occur.

Ski run construction would affect only 0.7 acres of the 12-acre wetland on the south side of the proposed expansion area. Under this alternative, the configuration of runs and ski lifts was modified to avoid most of this sensitive area (**Figure 2-3**).

Alternative D also involves construction of 1.2 miles of temporary roads and the installation of 3 temporary culverts. These activities may result in a slight increase in erosion and sedimentation during construction. However, none of the temporary roads or culverts would be near stream channels (see **Chapter 4 - Water Resources**). Water quality and quantity impacts to fish bearing waters would be small, if any.

There would be some regrading of slopes to accommodate skiers near the abandoned railroad grade (FS 3026) on the north side of Runt Mountain. A small area on the south side of Runt Mountain would also be regraded to eliminate side slopes. Regrading is expected to affect about 2.7 acres of new ski runs and 2 acres of existing runs for Alternative D. Best Management Practices would be applied to these areas including immediate revegetation and erosion control. Small, temporary increases in erosion may occur during and immediately after construction. However, given the distance to fish bearing streams (in all cases over 2000 feet), impacts to fisheries should be minimal.

Overall, Alternative D includes the clearing trees from 85 acres for new ski runs and other facilities (**Table 2-1**). About 55 acres would be cleared in the St. Regis River drainage and 30 acres in the South Fork Coeur d'Alene River drainage. Clearing in the St Regis River drainage would affect such a small percentage of the overall 5<sup>th</sup> code HUC that changes in water yield are too small to model and would be undetectable (<1% change, see **Chapter 4 - Water Resources**). Sediment yield and water quality may have very small, temporary increases during culvert installation but would otherwise be unaffected.

Clearing in the South Fork of the Coeur d'Alene River drainage would affect such a small percentage of the overall 5<sup>th</sup> code HUC that changes in water yield are too small to model and

would not be detectable (<1% change, see **Chapter 4 - Water Resources**). Water quality may have very small, temporary increases in sediment yield during culvert installation but would otherwise be unaffected.

#### **Compliance with the Forest Plan and Regulatory Framework**

The action alternatives comply with forest plan guidance since all species are maintained and are not impacted except for the potential for short-term effects due to culvert installations. Water quality, water yield and instream flows will be maintained at near current levels and BMPs will be utilized.

The action alternatives comply with INFISH requirements since they do not entail construction of recreation facilities within RHCAs of priority watersheds, except for Snowmobile Reroute #2, reconditioning Primitive Road A through the 12-acre wetland, and construction of a ski run over the 12-acre wetland (Alternative B). However, there would be no ground disturbing activities associated with the snowmobile reroute and ski run construction, and the reconditioned road would remediate ongoing erosion of the road.

Alternative B involves ski run construction across a Category 2 water (the Bitterroot Springs). Alternative B would affect more wetland areas (Category 3) than Alternatives C and D due to the construction of an 8-acre ski run within the wetland (**Table 4-3**). However, the action alternatives would improve current conditions on an existing road by restoring natural hydrologic flow paths and reducing the risk of sediment delivery to streams from the existing road surface. The construction of the action alternatives is not expected to have an overall impact on pool frequency, water temperature, large woody debris, or the width/depth ratio of fish bearing streams. Although Alternative B would likely not result in retarding attainment of RMOs, the construction of the ski run within the wetland is an avoidable impact, which would likely not be in compliance with INFISH.

The construction of Alternatives C and D is not expected to have an overall impact on the pool frequency, water temperature, large woody debris, or width/depth ratio of any of the streams in the area, including the non-fish bearing streams. The ski runs have been located to avoid wetlands. The 12-acre wetland on the south side of Runt Mountain would be crossed by a ski run that would affect 0.7 acres of the wetland (**Table 4-3**). The action alternatives would improve current conditions on the existing road through the wetland by restoring natural hydrologic flow paths and reducing the risk of sediment delivery to streams from the existing road surface. Therefore, Alternatives C and D are in compliance with INFISH.

Although the risk of extinction for bull trout in this portion of the St. Regis River is high, this project is not anticipated to pose further risks to these fish. The U.S. Forest Service does not consult with the U.S. Fish and Wildlife Service on bull trout for projects located in the South Fork of the Coeur d'Alene River because of the long history of mining, and other human impacts in this watershed. The likelihood of any management action in the basin resulting in incidental take of bull trout is low if not zero in this watershed (Idaho Panhandle National Forest, 1998).

#### **Effectiveness of BMPs**

An audit of the implementation and effectiveness of forestry BMPs conducted in Montana in 1994 found that overall compliance with BMPs was high (91% of the practices rated on all sites met minimum BMP applications). However, application of high risk BMPs (those BMPs that are the most important for protecting watersheds) on Federal lands was less consistent - 73% met or exceeded minimum requirements (Frank, 1994). This audit was conducted on timber sales

and not on ski area construction, so the applicability of this data is limited. Given the additional mitigation measures being proposed for the action alternatives, very limited impacts to fisheries resources are anticipated.

The proposed temporary sediment increases at culvert installations and potential small change in stream flows are unlikely to have detectable effects on fisheries.

### ***Comparison of Alternatives***

**Table 4-3** compares the issues discussed above for each alternative. None of the action alternatives are predicted to adversely affect bull trout. The action alternatives are expected to improve drainage problems on existing roads and trails on the south side of Runt Mountain. During and shortly after construction and road reclamation, there is a potential for a small, temporary increase in sediment mobilization from each of the action alternatives. Potential water quality impacts from sediment are lower under Alternative D than the other action alternatives, due to a smaller area of disturbance for timber removal, temporary roads, and slope regrading. Downstream impacts to water quality are not expected under any of the action alternatives for the reasons stated in **Chapter 4 - Water Resources**.

Riparian Management Objectives (RMOs) for the Inland Native Fish Strategy (INFISH) would be maintained or improved under Alternative D because of the road remediation planned and small area of disturbance. Approximately 0.7 acres of wetland would be crossed by one ski run on the south side of Runt Mountain. The action alternatives would be in compliance with the general fisheries goals and objectives of the IPNF and LNF Forest Plans.

**Table 4-3: Comparison of Alternatives – Fishery Resources**

<b>Issue</b>	<b>Alternative A - No Action</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>
Bull Trout	No change	May affect, not likely to adversely affect.	May affect, not likely to adversely affect.	May affect, not likely to adversely affect.
South side of Runt Mountain	No change	Improve drainage from existing roads and trail. Temporary, slight sediment impacts during construction.	Improve drainage from existing roads and trail. Temporary, slight sediment impacts during construction, but less than Alternative B.	Improve drainage from existing roads and trail. Temporary, slight sediment impacts during construction, but less than Alternative B.
North side of Runt Mountain	No change	Temporary, slight sediment impacts during construction. Culvert installation and regrading down-gradient from Bitterroot Springs.	Temporary, slight sediment impacts during construction, but less than Alternative B. Possible culvert installation up-gradient of Bitterroot Springs.	Temporary, slight sediment impacts during construction, but less than Alternatives B and C. No effect to Bitterroot Springs.
INFISH RMOs	No change	RMOs would be maintained. However, ski run constructed in a Category 3 water (8 acres of wetland), would likely not be in compliance with INFISH.	RMOs would be maintained or improved. Approximately 0.7 acres of wetland crossed by ski run. Fewer impacts to RHCAs than Alternative B.	RMOs would be maintained or improved. Approximately 0.7 acres of wetland crossed by ski run. Fewer impacts to RHCAs than Alternative B.

## **4.3.2 Vegetation**

### ***Alternative A - The No Action Alternative***

Under this alternative, natural processes would continue in the proposed expansion area. Timber and other vegetation growth would continue. Mortality would increase, especially lodgepole pine mortality due to insects, disease and other factors. Lodgepole pine would decrease in coverage and be replaced by other species, especially subalpine fir and Engelmann spruce. Some stands may experience spot or widespread fire episodes causing partial or

complete stand replacement. Fuel loading is likely to increase dramatically as lodgepole pine mortality increases. The absence of fire breaks in most of the proposed expansion area make a widespread, stand replacement fire possible in the near future.

### ***Effects Common to the Action Alternatives***

This section identifies vegetation effects common to the action alternatives, whereas the following section summarizes differences between alternatives. Under the action alternatives, timber would be removed for new ski runs, a parking lot and temporary roads. The permit area would no longer be available for timber production as long as the ski area operates. Forest fuels and future stand character may be affected by ski runs that improve access for fire control. No impacts are expected to old growth, range resources, noxious weeds or endangered, threatened and sensitive plant species.

### **Direct and Indirect Effects**

Trees would be removed from 85–145 acres (depending upon the alternative) to create new ski runs, create snowmobile reroutes, and construct temporary roads for tree harvest. Trees would not be allowed to re-grow. The acreage and distribution of timber cutting differs by action alternative and these differences are identified below under “Comparison of Alternatives”. Native understory vegetation, including forbs, grasses and shrubs would not be completely removed and would re-grow. Trees and tall shrubs would be periodically mowed to reduce height. Natural re-growth would be augmented with grass plantings using seed mixes that include native species. Construction activities for buildings, lift towers, lift stations and parking would affect small areas totaling approximately two acres. Regrading and revegetation on existing and new ski runs would affect between about 4.7-8.8 acres, as described under “Comparison of Alternatives” below.

A small amount of riparian and wetland vegetation would be disturbed when Primitive Road A is upgraded for use in timber removal on adjacent ski runs. The road would be graded and water bars would be installed to provide a permanent solution to the existing erosion problems where this road crosses the wetland on the southwest side of Runt Mountain.

Between 1.7 and 1.2 miles of temporary roads would be constructed, depending upon alternative. The temporary roads would have temporary culverts across dry draws that show little or no evidence of surface flow and lack wetland or riparian character.

Small disturbances would occur during the extension of existing culverts. The length of these extensions is presented in **Table 4-4**. Wetland and riparian vegetation would be allowed to re-sprout in the vicinity of new and extended culverts, but would be maintained at a height appropriate for ski operations.

Vegetation on those sites not directly affected by the action alternatives would continue to age as described under the No Action Alternative.

### **Old Growth**

No old growth would be affected by any action alternative since no old growth is present within the current or proposed permit boundaries (Erickson, 2000; Green and others, 1992; Dutton, 2000). The potential for future old growth to develop would be eliminated from the 85-145 acres of new ski runs and other timber removal areas proposed (**Table 4-4**). The remaining portions



of the proposed expansion area would continue to develop into potential old growth in the absence of stand replacement disturbances.

#### *Super Trees*

Twenty-four western white pine “super trees” have been identified on the lower south slopes on Runt Mountain (Cole, 2000). These trees are considered to have superior genetics. Cones and pollen have been collected from these trees for many years. Only one of these trees (#2107) is within the area affected by timber removal or other ground-disturbing activities proposed for the action alternatives. This tree and two others (#2108, #2110) are within the general area of historic snowmobile and backcountry skier use but have not been affected by these activities in the past. No effects on these trees are expected under any action alternative. During construction, super trees would be prominently marked to prevent direct or indirect impacts. The super trees, and the stands they occur in, do not meet current definitions of old growth forests.

#### *Fire and Forest Fuels*

Fuels would be dramatically reduced on the proposed ski runs and lift lines under the action alternatives. The acreage affected by tree removal for ski runs and chair lifts varies by alternative (**Table 4-4**). The additional ski runs would provide canopy breaks and potential fire breaks, as well as improved access for fire fighting. Fuel loadings would continue to increase on the remainder of the LPSRA as lodgepole pine and other species reach full maturity and die.

#### *Endangered, Threatened, Sensitive and Concern Plants*

There are no endangered plant species listed for Montana or Idaho. Both states have several plant species listed as threatened, however, none were identified, or are suspected, in the proposed expansion area based on existing habitat conditions. A records search of the Montana Natural Heritage Program database did not reveal any records of threatened, or sensitive (TES) plant species in the area (Miller, 2000). No TES plant species were observed during inventories conducted at the expansion area (Dutton, 2000; Elliott, 2000). If TES plant species are present which were not detected, any effect would most likely be to individual plants and would not result in a trend toward Federal listing. No plant species of special concern were observed during field inventories.

#### *Wetland and Riparian Areas*

The action alternatives would have an effect where they cross wetland and riparian areas. All action alternatives include upgrading a site where Primitive Road A crosses the large wetland on the southwest side of Runt Mountain. This upgrading to mitigate erosion problems would include water bar installation and would disturb less than 0.1 acre of wetland and riparian area. Other wetland and riparian impacts differ by alternative and are described under “Comparison of Alternatives” below. No wetland permitting would be required due to the small area of disturbance and the fact that no fill would be placed in wetlands.

#### *Noxious Weeds*

Noxious weed spread in the proposed expansion area is directly related to exposed soil and weed seed dispersal. Therefore, activities that disturb soil, reduce canopy coverage and result in more traffic would increase the potential for weed spread. Differences in effects on noxious weeds among the action alternatives are directly related to differences in acres disturbed.

Management practices can dramatically reduce weed spread including timely reseeding with desirable species, applying herbicides, and restricting travel. Forest standards require integrated weed management, which would be coordinated with LPSRA to provide adequate weed control. It is possible that the action alternatives would result in slight increases in weed distribution, especially at the margins of roads, ski trails and parking areas. Weed control efforts by the ski area would be continued and would emphasize the elimination of noxious weeds including knapweed, St. Johnswort and Canada thistle from roadsides, parking lots and ski trails.

Noxious weeds are not expected to be a substantial management issue at LPSRA due to the small area of weeds and the effectiveness of existing control methods. All weed management activities would be conducted in accordance with the Coeur d'Alene River Ranger District Noxious Weed FEIS, the Lolo National Forest Noxious Weed FEIS and REGION 1 SUPPLEMENT NO. 2000-2000-1 NOXIOUS WEED MANAGEMENT and will be included in the special use permit for the Lookout Pass Ski area. Concerns for TES plant species will be included in all weed control activities but no TES concerns have been identified at this time at LPSRA. Additional information on weeds is included in the project file.

### Cumulative Effects

The only other recent project within 6 miles of Lookout Pass was the Snowstorm Canyon Project, which was completed in the 1990s. The Snowstorm Canyon Project was located immediately north of Lookout Pass and included 507 acres of timber harvest, 1.59 miles of new road construction and 4.5 miles of road reconstruction. This project emphasized commercial thinning in the majority of the cutting units and did not harvest stands of Old Growth. No TES plant species were affected by the project (Barth, 1991). In 1998, approximately 30 acres of group selection units were replanted and monitoring results have certified that these stands have successfully regenerated (Truscott, 2001). Other harvested areas were thinned and did not require restocking. The combined effect of the proposed LPSRA action alternatives with the Snowstorm project is not expected to adversely affect vegetation resources.

Two other known future projects are within 6 miles of Lookout Pass: 1) the Touch America Fiber Optic Project (TA, 2000); and the North Fork St. Joe Project (IPNF, 1999). The North Fork St. Joe project is proposed southwest of Lookout Pass in another drainage separate from the two in which Lookout Pass is located. This project includes prescribed burning, timber harvest, tree planting, noxious weed treatments, road construction and other activities. The project would remove two acres of potential old growth with road clearing and construction. Design criteria would be applied to protect previously documented TES plant populations as well as ones discovered during surveys prior to project implementation. No adverse effects on vegetation resources were identified in the record of decision for this project that would add to those proposed at Lookout Pass.

The Touch America Fiber Optic Project includes installation of a fiber optic line, mainly by cable plow, and mainly into existing rights-of-way. In the vicinity of Lookout Pass, the fiber optic cable would be installed by cable plow into the old railroad bed on the east side of Lookout Pass and into the interstate highway fill on the west side of the pass. Potential impacts to vegetation resources from this activity are predicted to be very minor (TA, 2000). Mitigation measures are expected to minimize noxious weed invasions. No TES plant species were found in the area of direct affect. The combined effect of the proposed LPSRA action alternatives with the Touch America project is not expected to adversely affect vegetation resources.

### **Consistency with the Forest Plan and Regulatory Framework**

The action alternatives are consistent with the Lolo (LNF, 1986a) and Idaho Panhandle Forest Plans (IPNF, 1987a) and other regulatory framework regarding the vegetation issues of old growth, fire and forest fuels, endangered, threatened and sensitive plants, wetland and riparian areas, and noxious weeds. The action alternatives meet Forest Plan goals for old growth since no old growth would be affected and only the small acreage of ski runs would be removed from old growth potential during operation of the ski area. The action alternatives meet Forest Plan goals for fire and forest fuels since fire is allowed as a management tool and fire risk may be reduced through improved access and creation of canopy breaks (ski runs). The action alternatives meet Endangered Species Act and Forest Plan goals for endangered, threatened and sensitive plants since no endangered, threatened or sensitive plants would be affected. Forest Plan requirements for wetland and riparian areas are met by avoiding, minimizing impacts, implementing BMPs and coordinating with other permitting authorities. Requirements for noxious weed management are met since weeds will be managed under existing guidance documents and control methods have been found to be effective.

### ***Comparison of Alternatives***

This section summarizes the major differences in vegetation effects for each of the alternatives. **Table 4-4** illustrates the differences between each alternative, which are discussed below.

**Table 4-4: Comparison of Alternatives – Vegetation Resources**

<b>Issue</b>	<b>Alternative A - No Action</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>
Tree removal	No change	145 acres removed	91 to 93 acres removed	85 acres removed
Estimated Length of permanent culvert extensions	No change	100 feet	60 feet	60 feet
Number of proposed culverts	No Change	5 temporary and no permanent culverts	3 temporary and 2 permanent culverts	3 temporary and 1 permanent culverts
Old Growth	No change (not present)	No change (not present)	No change (not present)	No change (not present)
Fuels and Fire Management <ul style="list-style-type: none"> <li>Fire Control</li> <li>Fuel Loading</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> <li>Increase over time</li> </ul>	<ul style="list-style-type: none"> <li>No change to slight increase</li> <li>Decrease on ski runs, roads, parking area</li> </ul>	<ul style="list-style-type: none"> <li>No change to slight increase</li> <li>Decrease on ski runs, roads, parking area</li> </ul>	<ul style="list-style-type: none"> <li>No change to slight increase</li> <li>Decrease on ski runs, roads, parking area</li> </ul>
TES Plants	No change	No change	No change	No change
Wetlands and Riparian Areas <ul style="list-style-type: none"> <li>Acres of wetland loss</li> <li>Acres of wetland affected by ski runs</li> <li>Acres of riparian area loss</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> <li>No change</li> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Loss at culverts &lt;0.1 acre</li> <li>8 acres</li> <li>Loss at culverts &lt;0.1 acre</li> </ul>	<ul style="list-style-type: none"> <li>Loss at culverts &lt;0.1 acre</li> <li>0.7 acres</li> <li>Loss at culverts &lt;0.1 acre</li> </ul>	<ul style="list-style-type: none"> <li>Loss at culverts &lt;0.1 acre</li> <li>0.7 acres</li> <li>Loss at culverts &lt;0.1 acre</li> </ul>
Noxious Weeds	No change	Potential slight increase	Potential slight increase	Potential slight increase

Effects on timber would not change under Alternative A, the No Action Alternative. Alternative B would remove 145 acres of timber and this area would no longer contribute to the timber base. Alternative C would remove 91 to 93 acres of timber and Alternative D would remove 85 acres.

No old growth would be affected under any alternative since no old growth has been identified in the proposed expansion area. Future old growth development would be excluded from 145 acres of timber clearing for ski runs under Alternative B, from 91 to 93 acres under Alternative C and from 85 acres under Alternative D.

No threatened, endangered, sensitive or concern plant species would be affected under any alternative according to plant surveys conducted on all sites proposed for disturbance. Even if undetected individual plants are affected, it would not likely result in a population change that would result in listing as an endangered or threatened species.

Under Alternative A, no wetlands or riparian areas would be affected. The action alternatives include upgrading a site where Primitive Road A crosses the large wetland on the southwest side of Runt Mountain. This upgrading would include water bar installation and would disturb less than 0.1 acre of wetland and riparian area. Under Alternative B, the existing culvert near Bitterroot Springs would be extended 100 feet uphill and the adjacent area filled to accommodate skier passage (**Table 4-4**). This would eliminate less than 0.1 acre of wetland and riparian area. Under Alternatives C and D, the existing culvert near the proposed north side lower lift station would be extended 60 feet uphill to accommodate skier passage and lift terminal construction. Under Alternative C, two new culverts would be installed on the north side of Runt Mountain including one above Bitterroot Springs (**Table 4-4**). Under Alternative D, one new culvert would be installed on the north side of Runt Mountain.

Under Alternative B, a ski run would be constructed covering 8 acres of wetland on the south side of Runt Mountain (**Figure 2-1**). No grading or filling would be required but trees and tall shrubs would be cut to approximately 1 foot in height. Under Alternatives C and D, the wetland ski run was eliminated, however an adjacent run would cross 0.7 acre of the wetland (**Figures 2-2 and 2-3**). No grading, filling or tree removal would be required in this wetland area under Alternatives C or D but skiers would travel over it on top of the snow.

Under Alternative A, no change would occur in noxious weeds. Under the action alternatives there is a possibility to increase weed spread due to mineral soil exposure but weed control efforts should be effective at reducing spread.

### 4.3.3 Wildlife

#### ***Alternative A – The No Action Alternative***

The No Action Alternative would maintain the existing condition at LPSRA (see **Chapter 3 - Wildlife**). There would be no new impacts to wildlife resources. The current wildlife conditions and trends would remain as they are now.

#### ***Effects Common to the Action Alternatives***

##### **Direct and Indirect Effects**

With the action alternatives, direct impacts to wildlife and wildlife habitat would result from habitat alteration and displacement of species sensitive to human activities. Relatively common species that may be affected by habitat alteration and increased human presence during the construction phase of the action alternatives include elk, mule deer, white-tailed deer, and moose.

Human presence during construction could displace elk and other species sensitive to noise and human presence. The presence of skiers and activities related to skiing (e.g., snow grooming and operation of lifts) would also tend to displace wildlife sensitive to these activities from intact habitat near the ski area during winter. Following construction, displaced animals would likely return to undisturbed habitat. During the summer and fall when the snow is gone,

elk, mule deer, and other species of wildlife would likely resume use of habitat in the ski area. Ski runs with nearby patches of forest cover are attractive foraging areas for deer, elk, and moose during summer and fall, if levels of human activity are low.

Lift-assisted mountain biking is not proposed at this time, but is a reasonably-foreseeable action. Additional mountain bike use near the ski area may also occur because of the popularity of the LPSRA Hiawatha Trail concession and proposed overnight facilities at LPSRA. An increase in mountain bike traffic would have the potential to displace animals from using habitat. Depending on the timing (both seasonal and daily) and intensity of use, mountain biking and operation of lifts may reduce foraging opportunities for wildlife on open ski runs. High levels of human use in summer, near wooded areas and adjacent to ski runs, may also displace animals into more secure habitat away from human activity. If timing and levels of human use are relatively consistent, some individual animals would become accustomed to human presence and use habitat on the ski area even if use levels are high. Animals that do not tolerate relatively high levels of human use would be displaced to habitats farther from the ski area. These displaced animals may compete with other animals now occupying that habitat. It is likely that high levels of human activity in summer would incrementally reduce the carrying capacity of the habitat below existing levels, which may result in small reductions in local populations of species such as deer, elk and moose.

*Threatened, Endangered, and Candidate Species*

*Gray Wolf (Threatened)*

None of the action alternatives would affect wolf denning or hunting areas or rendezvous sites. There would be no impacts to the prey base locally or regionally. The action alternatives would have no effect on gray wolves.

*Grizzly Bear (Threatened)*

The action alternatives would not remove grizzly bear foraging, denning, security habitat, or increase mortality risk. The action alternatives would not affect the grizzly bear.

*Bald Eagles (Threatened)*

None of the action alternatives would affect bald eagle perching, roosting, foraging, or nesting habitat, consequently they would have no affect on bald eagles or their habitat.

*Lynx (Threatened)*

Potential effects to lynx could result from alteration of habitat, displacement from habitat by human activities, increased competition with other carnivores (e.g., coyotes) and alteration of prey abundance and distribution (Buskirk et al., 1999). Habitat would be altered by conversion of forest to open ski runs, parking lots, roads and other expansion facilities (**Table 2-1**).

Although not well documented, studies suggest that competition with other carnivores (e.g., coyote, bobcat, and mountain lion) can adversely affect lynx (Buskirk et al., 1999). Lynx are better adapted than these carnivores to deep snow conditions. Construction of roads and use of roads in winter and packed ski runs can increase competition between lynx with other carnivores by allowing them improved access to habitat with deep snow, better suited to lynx. Winter track surveys, conducted by Land & Water biologists, indicate that coyotes are abundant

on and around the LPSRA. Coyotes may compete with lynx for food and may harass or kill lynx, especially young animals.

*Foraging habitat for lynx*

Construction of ski runs and other features would convert from 85-145 acres (depending on the alternative) of foraging habitat to unsuitable lynx habitat. This loss of foraging habitat would increase the amount of unsuitable habitat in the St. Joe East LAU (Idaho side) from 102 acres (1.3% of capable habitat in the LAU) to 187-247 acres (2.4-3.2% of capable habitat in the LAU). Unsuitable lynx habitat for the Lookout LAU (Montana side) would increase from 590 acres to 675 -735 acres (2.6 – 2.8% of capable habitat in the LAU). Habitat that would be converted to ski runs, currently, is not optimal for lynx foraging due to stand structure and low densities of snowshoe hare, the primary prey of lynx. The action alternatives would have negligible impacts on lynx foraging habitat.

*Denning habitat for lynx*

Areas proposed for disturbance have limited potential for denning due to scarcity of large amounts of woody debris. Removal of timber for ski runs would have a negligible effect on potential denning habitat.

*Diurnal security habitat for lynx*

Alternative B would adversely affect potential diurnal security habitat in the vicinity of Bitterroot Springs. Relatively dense shrub and tree canopies would be partially removed with construction of a lift and new ski runs through the wetland and riparian habitat associated with Bitterroot Springs. In addition to removal of vegetation, the presence of skiers would render the entire vegetation complex associated with Bitterroot Springs ineffective as diurnal security habitat. Potential security habitat that would be removed currently does not appear to be occupied by lynx due to low densities of snowshoe hares and inaccessibility due the movement barrier created by Interstate Highway 90.

The snowmobile reroute associated with Alternative C (Alternative Route A – **Figure 2-2**) also would remove potential lynx security habitat associated with Bitterroot Springs. Increased use by snowmobiles directly through the riparian-wetland complex associated with Bitterroot Springs would substantially eliminate the possibility that lynx would at some time in the future utilize the area for diurnal security.

*Connectivity habitat for lynx*

On a regional level, the action alternatives would have little effect on connectivity of habitat to the north and south of Lookout Pass. The interstate highway and its vertical retaining walls and steep rocky cut-slopes would remain a substantial barrier to the regional movement of lynx and other wildlife. Lynx are not expected to cross Interstate 90 within one mile of the top of Runt Mountain because of the vertical highway retaining walls, steep cut-slopes, and the existing ski area. The most likely place for lynx to cross Interstate 90 is between the ski area and Taft, Montana. The action alternatives are not expected to impede lynx movement across I-90. The action alternatives would be concentrated within one mile of the top of Runt Mountain. A slight increase in backcountry and cross-country skiing or snowmobiling may increase human interactions nearby, especially in the St. Regis Basin. However, the additional use of Runt Mountain is not expected to interfere with the main crossing area for lynx, which is further south of Runt Mountain along the highway toward Taft, Montana.

The action alternatives would fragment existing lynx foraging habitat on Runt Mountain into smaller patches, reducing the capability of lynx to move throughout ski area. This would be a relatively minor effect since cover is still well distributed throughout the ski area and abundant in adjacent areas. The pattern and amount of cover with the action alternatives would have little or no influence on connectivity within the LAUs.

#### *Human access and lynx*

The action alternatives would increase levels of human access into lynx foraging habitat. Ski runs would provide human access mainly in winter, but also during other seasons for hikers, mountain bikers, hunters, and other recreationists. Increased human access would not affect lynx denning because no suitable denning habitat would be affected.

Under current conditions the extensive system of packed ski and snowmobile trails (**Figure 1-2**) provides access for coyotes into lynx habitat in winter when snow is deep. Coyotes and other carnivores (e.g., bobcat and mountain lion) that may compete with lynx are able to easily access all areas of the existing ski area and proposed expansion area along existing packed ski and snowmobile trails. Because existing access to the ski area and surrounding habitats is relatively unrestricted due to the presence of packed trails and ski runs, additional packed ski runs would have a negligible effect on access to habitat in and near the ski area by carnivores that could compete with lynx.

Alternatives B and C would eliminate snowmobile use of the old railroad grade (Forest Road 3026) on the north side of Runt Mountain. Under Alternative C, snowmobiles would be rerouted over St. Regis Pass west of Bitterroot Springs (see Snowmobile Reroute #1 in **Figure 2-2**). The reroute over St. Regis Pass is currently used by snowmobiles, therefore, no new packed trails would be established as a result of this reroute. However, grooming this route under Alternative C would create easier access to the Montana-Idaho divide and nearby high-country. Improved access to the backcountry in the St. Regis Basin and along the Montana-Idaho state line, as a result of grooming, would increase the potential for human presence in winter to adversely affect lynx foraging habitat. Grooming could also increase the ease with which coyotes and mountain lions could access lynx foraging habitat. Although coyotes currently follow ungroomed snowmobile trails into areas of deep snow favored by lynx, grooming could increase the ease with which coyotes and mountain lions could expand their foraging into areas normally avoided because of deep snow. Coyotes and mountain lions compete with lynx for prey and may directly affect lynx by harassment or predation.

#### *Lynx Conservation*

The Canada Lynx Conservation Assessment and Strategy (Ruediger et al. 2000) identifies conservation measures for recreation management that apply to ski area developments and expansions. These measures include the following planning objectives, standards, and guidelines. After each objective, standard, or guideline, a response is presented concerning how these measures would be addressed at LPRSA with the proposed expansion.

#### *Programmatic Planning – Objectives*

1. Plan for and manage recreational activities to protect the integrity of lynx habitat, considered as a minimum the following:
  - a) Minimize snow compaction in lynx habitat.

- b) Concentrate recreational activities within existing developed areas, rather than developing new areas in lynx habitat.
- c) On federal lands, ensure that development or expansion of developed recreation sites or ski areas and adjacent lands address landscape connectivity.

Response: a) Snow compaction on roads and trails would not change from existing conditions. b) Proposed developed recreational activities would be concentrated in areas with extensive existing dispersed recreation use associated with the existing ski area; no new dispersed recreational expansion is proposed. c) Landscape connectivity is addressed as a separate section of this BA.

#### Programmatic Planning – Standards

1. On federal lands in lynx habitat, allow no net increase in groomed or designated over-the-snow routes and snowmobile play areas by LAU. This is intended to apply to dispersed recreation rather than existing ski areas.

Response: There would be no new groomed or designated over-the-snow routes in the analysis area. The only new groomed surfaces would be ski runs directly associated with the existing ski area (i.e., not dispersed recreation).

2. Map and monitor the location and intensity of snow-compacting activities (for example snowmobiling, snowshoeing, cross-country skiing, and dog sledding) that coincide with lynx habitat, to facilitate future evaluation of effects on lynx as information becomes available.

Response: A map showing the location of snow-compacting activities (i.e., trails and ski runs) is included in this BA (Figure 1). The backcountry adjacent to the ski area is currently heavily used by snowmobiles and cross-country skiers. Monitoring of snowmobile use is currently conducted by the Montana Department of Fish, Wildlife and Parks.

#### Programmatic Planning – Guidelines

1. Provide a landscape with interconnected blocks of foraging habitat where snowmobile, cross-country skiing, snowshoeing, and other snow-compacting activities are minimized and discouraged.

Response: The preferred alternative was chosen because it concentrates developed recreation near the ski area and does not introduce new snowmobile, cross-country ski, and snowmobile trails. There are no plans to limit snowmobile, cross-country, and other snow-compacting activities outside of the LPSRA special-use permit boundary. Changes in overall management of the Forest outside the special use permit boundary is beyond the scope of the proposed action.

2. As information becomes available on impact of snow-compacting activities and disturbance on lynx, limit or discourage this use in areas where it is shown to compromise lynx habitat. Such actions should be undertaken on a priority basis considering habitat function and importance.

Response: If habitat within the special-use permit boundary were found to be used by lynx for denning or diurnal security, measures would be implemented to limit use of these areas.



## Project Planning – Standards

### *Developed Recreation*

1. In lynx habitat, ensure that federal actions do not degrade or compromise landscape connectivity when planning and operating new or expanded recreation developments.

Response: Landscape connectivity is addressed in previous sections of this BA.

2. Design trails, roads, and lift termini to direct winter use away from diurnal-security habitat.

Response: A potential lynx diurnal-security area at Bitterroot Springs would not be directly affected by the proposed expansion. Alternatives to the proposed action that would have directly affected Bitterroot Springs were rejected because of greater impacts to potential lynx habitat and other wildlife species.

### *Dispersed Recreation*

1. To protect the integrity of lynx habitat, evaluate (as new information becomes available) and amend as needed, winter recreational special-use permits (outside of ski areas) that promote snow-compacting activities in lynx habitat.

Response: The proposed action is to expand developed recreation and not expand groomed trails associated with dispersed recreation.

## Project Planning – Guidelines

### *Developed Recreation*

1. Identify and protect potential security habitats in and around proposed developments or expansions.

Response: Potential diurnal security habitat at Bitterroot Springs would be protected with the proposed action. Other diurnal security areas on the Montana side of Lookout Pass may also be protected as diurnal security habitat.

2. When designing ski area expansions, provide adequately sized coniferous inter-trail islands, including the retention of coarse woody material, to maintain snowshoe hare habitat.

Response: Trail widths would be minimized with the proposed action and, conversely, inter-trail islands would be maintained at their maximum size.

3. Evaluate and adjust as necessary, ski operations in expanded or newly developed areas to provide nocturnal foraging opportunities for lynx in a manner consistent with operational needs, especially in landscapes where lynx habitat occurs as narrow bands of coniferous forest across mountain slopes.

Response: Protection of the Bitterroot Springs areas would enhance potential nocturnal foraging opportunities.

### Sensitive Species

#### *Coeur d'Alene Salamander*

Habitat for Coeur d'Alene salamander may be present at Bitterroot Springs and along drainages that originate from the springs. Alternative B would require extending the culvert 100 feet along the existing railroad grade (FS 3026) and some fill would also be necessary. This activity may impact individuals and a small amount of habitat, but would not contribute to a trend in federal listing or cause loss of viability to the population or species.

#### *Harlequin Duck*

No habitat for harlequin ducks would be affected by the action alternatives. The action alternatives would not likely contribute to a trend towards federal listing or cause loss of viability to the population or species.

#### *Northern Goshawk*

Removal of lodgepole pine forest on Runt Mountain could affect nesting and foraging habitat for goshawks. Although these species may use habitats that would be affected by the action alternatives, the cold, high-elevation habitats that would be affected are not productive foraging areas for goshawks. The action alternatives may impact individuals and habitat, but would not likely contribute to a trend towards federal listing or cause loss of viability to the population or species.

#### *Black-backed Woodpecker*

Habitat that would be affected by the action alternatives is not optimum habitat for black-backed woodpecker. This species is most-closely associated with burned stands of conifers that have been invaded by insects or diseased trees with high insect populations. The action alternatives may impact individuals and habitat, but would not likely contribute to a trend towards federal listing or cause loss of viability to the population or species.

#### *Flammulated Owl*

It is unlikely that the action alternatives would affect habitat for flammulated owls. The subalpine forests in the study area are at a higher elevation than usually frequented by flammulated owls. The action alternatives would not likely contribute to a trend towards federal listing or cause loss of viability to the population or species.

#### *Townsend's Big-eared Bat*

No habitat for Townsend's big-eared bats would be affected by the action alternatives. The action alternatives would not likely contribute to a trend towards federal listing or cause loss of viability to the population or species.

#### *Fisher*

Fisher are present near the ski area, most likely at lower elevations along drainages. Although specific habitat requirements for fisher are not well known, it is likely that they use elevations lower than the proposed expansion area for foraging and denning. Habitat that would be altered by the action alternatives is at high elevations with open understories. This habitat is marginal for fisher denning and foraging. Natal dens are most often in cavities of trees or in hollow logs.

Low densities of large trees and logs in the expansion area limit its potential for fisher denning habitat. The action alternatives may impact individuals or habitat, but would not be likely to contribute to a trend towards federal listing or cause loss of viability to the population or species.

*Wolverine*

Wolverine may utilize habitat in the analysis area as part of a larger home range. Conversion of high-elevation forest habitat to herbaceous and shrub-dominated openings would not affect the prey base of wolverine and would not affect potential denning habitat. The action alternatives may impact individuals and habitat, but would not likely contribute to a trend towards federal listing or cause loss of viability to the population or species.

*Northern Bog Lemming*

No habitat for northern bog lemmings would be affected by the action alternatives. The action alternatives would not contribute to a trend towards federal listing or cause loss of viability to the population or species.

*Boreal Toad*

Breeding habitat for boreal toads may be present at Bitterroot Springs and the associated drainages. Boreal toads may disperse from breeding habitat for a substantial distance from water and, consequently, may be present anywhere in the proposed expansion area. Culvert construction with Alternative B may affect breeding habitat for boreal toads. Some upland habitat used by boreal toads for foraging may also be affected with the action alternatives. The action alternatives may impact individuals and habitat, but would not likely contribute to a trend toward federal listing or cause loss of viability to the population or species.

*Northern Leopard Frog*

Habitat for northern leopard frogs may be present at Bitterroot Springs and associated drainages. Culvert construction with Alternative B would destroy some potential habitat for leopard frogs. Alternative B may adversely affect individual leopard frogs but would not contribute to a trend towards federal listing or cause loss of viability to the population or species.

*Peregrine Falcon*

No peregrine falcon breeding or foraging habitat is present on or near the study area. The action alternatives would not contribute to a trend towards federal listing or cause loss of viability to the population or species.

*Common Loon*

No common loon breeding or foraging habitat is present on or near the study area. The action alternatives would not contribute to a trend towards federal listing or cause loss of viability to the population or species.

*Management Indicator Species*

*Pileated Woodpecker (indicator of Douglas-fir)*

Pileated woodpeckers most often are associated with large-diameter Douglas-fir, ponderosa pine, and black cottonwood for nesting and foraging. The study area is above the elevation

range where these species predominate. The action alternatives would not substantially alter habitat that may be used by pileated woodpeckers, consequently, the distribution and population numbers of this species in the proposed expansion area would not appreciably change with the action alternatives.

#### *American Marten*

Although martens use habitat within the study area, most of the proposed expansion area is at high elevation, does not appear to have an abundant prey base (e.g., red squirrels and snowshoe hares), has no late-successional forest, and has relatively small amounts of down, woody material. Woody debris (e.g., logs, stumps and branches) provides habitat for small mammals, prey for marten, and facilitates movement under deep snow. The action alternatives would not substantially alter habitat used by the American marten, consequently, the distribution and population numbers of this species in the expansion area would not appreciably change with the action alternatives.

#### *Elk*

Conversion of forest habitat to ski runs would reduce summer/fall hiding cover for elk and render them more vulnerable to mortality during the hunting season. Cleared ski runs would provide relatively easy pedestrian access for hunters and provide long unimpeded, views for shooting. Also, grass and other herbaceous forage would likely attract elk to openings created by ski runs, increasing their vulnerability to hunting mortality. The action alternatives would increase the risk of hunter-caused mortality to elk. This would be a localized minor impact because hunters readily access the study area under existing conditions because of the high density of roads and trails.

Under the action alternatives, road density will be reduced with removal of Primitive Roads A and B, which will improve summer habitat for elk. The roads will become vegetated with grasses and forbs, which will provide forage for elk. Additionally, decreased traffic on these roads may reduce displacement of elk from parts of the analysis area during summer. Potential effects of roads on elk will further reduced by through enforcement of the Coeur d'Alene Ranger District's Access Management Plan, which prohibits motorized-wheeled access off of FR 3026 (the old railroad grade); thus, the steep, primitive road through St. Regis Pass will no longer be open to motorized travel.

#### *Mule Deer*

Mule deer hiding and thermal cover would be reduced by the action alternatives, but forage and browse would increase on cleared ski runs. The loss in hiding and thermal cover and increases in forage would have minor effects on the local and regional population of mule deer. Increased hunter access with the action alternatives may slightly increase hunter-caused mortality of mule deer.

#### *Habitat Fragmentation and Movement Corridors*

The LPSRA action alternatives would create cleared ski runs in forest habitats. Vegetation on ski runs would be mostly herbaceous species, low shrubs, and tree seedlings. These narrow, linear openings in forest habitats would not inhibit movement of forest carnivores (i.e., marten, fisher, lynx, and wolverine) or small mammals during summer and fall. During winter, when skiers are present, forest carnivores would likely avoid ski runs during the day, but would cross ski runs at night. Although the action alternatives would alter habitat characteristics, patches of

habitat transected by ski runs would be accessible to wildlife. Locally and regionally the action alternatives would have minor impacts on habitat connectivity for forest carnivores and other species of wildlife.

#### Neotropical Migrants

Potential impacts to neotropical migrants could occur from removing trees and shrubs from ski runs if the affected trees harbor nests with eggs or young. If active nests are destroyed, eggs and young would also be destroyed. Loss of nests and young from the relatively small area (85-145 acres depending on the alternative) would not likely have a measurable negative effect on local and regional populations of neotropical migratory birds.

Increased parasitism of nests by cowbirds is a possibility with increased clearing for ski runs; however, currently there are few large stands of forest that have not been dissected by existing ski runs, roads, and trails. If habitat for cowbirds is present under current conditions, it is unlikely that the proposed action would substantially increase the potential for cowbird parasitism. The relatively high elevation of the LPSRA may also be beyond the optimum elevation range favored by cowbirds.

#### Cumulative Impacts

Cumulative impacts to wildlife movement (i.e., connectivity of habitat) would result from the LPSRA action alternatives and the existing interstate highway. Expansion of the ski runs may incrementally discourage wildlife movement between habitats north and south of the ski area and interstate highway; however the small incremental impact that would result from ski area expansion would be negligible.

Unsuitable lynx habitat would slightly increase in the two LAUs affected by the action alternatives. The action alternatives would increase unsuitable habitat from 102 acres of the St. Joe East LAU (Idaho) of foraging habitat to 187- 247 acres of unsuitable lynx habitat. This increase would increase unsuitable habitat from 1.3% to 2.4 - 3.2% of the LAU, depending on the alternative selected. Expansion into the Lookout LAU (Montana) would increase unsuitable habitat from 590 acres (2.3% of the capable habitat in the LAU) to 675 - 735 acres, 2.6 - 2.8% of the LAU. These increases are well below the upper limit of 30% unsuitable habitat in an LAU that the Lynx Conservation Strategy specifies.

The analysis of wildlife in this chapter includes consideration of previous recent actions in the cumulative effects area, such as the Snowstorm Canyon Project (IPNF, 1991). The Snowstorm Canyon Project was a timber sale adjacent and north of the existing ski area on the north and south sides of the South Fork of the Coeur d'Alene River. The timber sale involved commercial thinning and was determined to improve elk security because of road closures. The only other project proposed in the area of cumulative effects is the Touch America Billings to Yakima Fiber Optic Project (TA, 2000). The project would include placement of an underground fiber optic cable along FS 4208 in Montana and the right-of-way of Interstate 90 in Idaho. The Biological Evaluation for the project determined that the project would have no adverse effects on threatened, endangered, or sensitive wildlife species.

### **Consistency with Forest Plan and Regulatory Framework**

The goals and standards for each affected Forest Plan are discussed below. All alternatives are in compliance with the general wildlife goals and objectives of the Idaho Panhandle and Lolo National Forest Plans. Compliance with other regulatory guidance, such as the Endangered Species Act, was discussed in previous sections and is detailed in the BA/BE which is available in the project file.

#### **IPNF Forest Plan**

The goals of the Idaho Panhandle Forest Plan (1987a) related to wildlife populations and habitat are listed below:

- *“Provide for diversity of plant and animal communities.*
- *Manage vertebrate wildlife habitat to maintain viable populations of all species.*
- *Manage big game habitat toward achieving the goals of the Idaho Department of Fish and Game.*
- *Manage the habitat of animal and plant species listed under the Endangered Species Act to provide for recovery as outlined in the species recovery or management plan. Manage habitat to maintain populations of identified sensitive species of animals and plants.”*

The objectives of the IPNF Forest Plan related to wildlife are:

- *“To help provide for a diversity of plant and animal communities, habitats, and species, standards for old growth maintenance will be established. Approximately 10 percent of the Forest will be maintained in old growth as needed to provide for viable populations of old-growth dependent and management indicator species. To obtain the desired distribution, the IPNF will be managed to maintain approximately 5 percent of each old-growth unit as old growth were it exists.*
- *Habitat for vertebrate populations, other than threatened, endangered, and sensitive species, will be managed to maintain viable populations (greater than 40 percent of maximum potential). In order to maintain viable populations of all species, the habitat will be managed for selected indicator species. Habitat for species harvested (big game, small game, and furbearers), except elk, will be managed to meet goals outlined in the Regional Guides.*
- *Elk habitat will be managed to provide for a potential population increase in striving to meet the Idaho Fish and Game population goals. Management for elk habitat needs will emphasize road management to maintain adequate security and habitat potential on the summer range. Forage production on winter range is heavily dependent on scheduling clearcut timber harvesting, supplemented by burning of existing forage areas to provide adequate quantity and location of forage areas.”*

#### **Lolo National Forest Plan**

A goal of the Lolo National Forest Plan (1986a) related to wildlife is to: *“Provide habitat for viable populations of all indigenous wildlife species and for increasing populations of big-game animals”*. Standards of the LNF Forest Plan set specific guidelines for protecting wallows, mineral licks, seeps, and winter range. The standards also include the following directives.

- *“The document “Coordinating Elk and Timber Management” (final Report of the Montana Cooperative Elk-Logging Study, 1970-1985)...will be used as a basic tool for assessing the*

*affects of timber harvest upon elk habitat, and for making decisions that affect the overall big-game resource.*

- *All threatened and endangered species occurring on the Lolo including the grizzly bear, bald eagle, peregrine falcon, and gray wolf will be managed for recovery to non-threatened status. Forest Service designated essential habitat will provide interim management direction for those species until critical habitat is designated by the Fish and Wildlife Service...*
- *In the portion of the Forest more than 200 feet from all system roads, sufficient snags and dead material will be provided to maintain 89 percent of the population of snag-using species normally found in an unmanaged Forest.*
- *Provide a variety of hunting recreation opportunities by using project planning and road management to assist the Montana Department of Fish, Wildlife, and Parks in meeting their goal of maintaining long hunting seasons with minimum restrictions.*
- *Management practices in essential habitat of threatened and endangered species must be compatible with habitat needs of the species (grizzly bear, gray wolf, bald eagle, and peregrine falcon) consistent with the goal of recovery to non-threatened status...*
- *Land management activities shall be designed to have a minimum impact on the aquatic systems, free from permanent or long-term unnatural imposed stress. (A long-term stress is defined as a downward trend of indicators such as aquatic insect density or diversity, fish populations, intra-gravel sediment accumulations, or channel structure changes that continue for more than 1 hydrologic year as determined by procedures outlined in the Forest Plan Monitoring Requirements.) Project level assessments will address the potential impacts of management activities on off-Forest aquatic resources by considering and evaluating downstream data wherever available."*

### **Comparison of Alternatives**

The various LPSRA alternatives are discussed below and summarized in **Table 4-5**.

#### **Impacts of Alternative A (No Action)**

With the No Action Alternative, conditions for wildlife would remain the same. High levels of human activity in winter from skiing and snowmobiling would continue. Wildlife species that currently are present on the ski area would likely continue to occupy the same habitats.

#### **Impacts of Alternative B versus Alternatives C and D**

Alternative D would convert less acreage of forested habitat to ski runs and other facilities (see **Table 4-5**) and would not divide as much habitat into patches. Alternative B would also include clearing habitat downstream from Bitterroot Springs.

Alternative B would have slightly greater impact on potential lynx habitat than Alternatives C and D. The forested diurnal security habitat downstream of the Bitterroot Springs would be affected by Alternative B, but not Alternatives C and D. Although lynx have not been detected in habitat associated with Bitterroot Springs, the dense shrub canopy has the potential to provide diurnal security habitat that would allow lynx to remain near the ski area when there are high levels of human activity in winter.

The snowmobile reroute with Alternative C would likely increase numbers of snowmobiles that travel into the St. Regis Basin and along the Montana-Idaho Divide. Increased snowmobile use of the St. Regis Basin could have negative effects on lynx through increasing access of coyotes and other carnivores that compete with lynx. Coyotes, mountain lions, and red fox gain access

to areas of deep snow favored by lynx, along packed roads, ski trails and snowmobile trails. Increased snowmobile presence and back country skiing in lynx foraging habitat may displace lynx from foraging habitat, but there is little data concerning effects to lynx use of habitat by snowmobiles, skiers, and other human traffic. Data collected in Canada concerning lynx use of large ski areas indicates that some lynx appear to become accustomed to human activities and utilize areas near ski runs for foraging and rearing young.

A comparison of unsuitable foraging habitat for lynx by alternative is shown in Table 4-5. Alternative B would create slightly more unsuitable foraging habitat than Alternatives C and D. Habitat that would be converted to ski runs, currently is not optimal for lynx foraging due to stand structure and low densities of snowshoe hare, the primary prey of lynx. The action alternatives would have negligible impacts on lynx foraging habitat. The action alternatives would affect areas with limited potential for lynx denning due to the scarcity of large woody debris. Removal of timber for ski runs would not reduce potential denning habitat.

The amount of packed trails near the ski area would decrease because of the action alternatives. However, the number of packed ski runs would increase on Runt Mountain. Carnivores competing with lynx would have greater access to ski runs under the action alternatives, but would have less snowmobile and cross-country trails to access other areas of Runt Mountain. Packed ski runs would cover a larger area under Alternative B (281 total acres) than Alternative A (127 total acres), Alternative C (217 total acres), and Alternative D (215 acres). However, Alternative A would maintain 74,386 feet of packed snowmobile and cross-country ski trails, whereas Alternative B would reduce this amount to 55,235 feet, Alternative C would reduce this amount to either 61,635 or 63,922 feet, and Alternative D would reduce this amount to 69,730 feet.

Interstate 90 and the existing ski area currently act as barriers to lynx movement within one mile of the top of Runt Mountain. Lynx are anticipated to cross I-90 southeast of the ski area near Taft, Montana. The action alternatives would take place within one mile of Runt Mountain and are not expected to interfere with lynx crossing I-90. The impacts of the action alternatives on wildlife are consistent with the management goals and standards of the IPNF and LNF Forest Plans.

**Table 4-5: Comparison of Alternatives - Wildlife**

Issue	Alternative A (No Action)	Alternative B	Alternative C	Alternative D
Forested habitat converted to ski runs and other facilities	No change	145 acres	91 to 93 acres	85 acres
TES wildlife <ul style="list-style-type: none"> <li>▪ Diurnal security habitat for lynx</li> <li>▪ Unsuitable foraging lynx habitat</li> <li>▪ Feet of packed trail in area of direct effect</li> <li>▪ Acres of ski runs in area of direct effect</li> </ul>	<ul style="list-style-type: none"> <li>▪ No change</li> <li>▪ No change</li> <li>▪ No change (74,386 feet)</li> <li>▪ No change (127 acres)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Loss of diurnal security habitat for lynx below Bitterroot Spring (&lt;0.1 acre)</li> <li>▪ Unsuitable lynx habitat increased by 0.5% (MT) and 1.9% (ID)</li> <li>▪ 55,235 feet total (74% of Alternative A)</li> <li>▪ 154 additional acres (278 total acres, or 218% of Alternative A)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Little potential to affect diurnal habitat</li> <li>▪ Unsuitable lynx habitat increased by 0.3% (MT) and 1.2% (ID)</li> <li>▪ Either 61,635 or 63,922 feet total (83-85% of Alternative A)</li> <li>▪ 90 additional acres (212 total acres, or 167% of Alternative A)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Little potential to affect diurnal habitat</li> <li>▪ Unsuitable lynx habitat increased by 0.3% (MT) and 1.1% (ID)</li> <li>▪ 69,729 feet total (94% of Alternative A)</li> <li>▪ 87 additional acres (214 total acres, or 169% of Alternative A)</li> </ul>
Wetland and riparian habitat <ul style="list-style-type: none"> <li>▪ Acres of wetland loss</li> <li>▪ Acres of wetland affected by ski runs</li> <li>▪ Acres of riparian area loss</li> </ul>	<ul style="list-style-type: none"> <li>▪ No change</li> <li>▪ No change</li> <li>▪ No change</li> </ul>	<ul style="list-style-type: none"> <li>▪ Loss at culverts &lt;0.1 acre</li> <li>▪ 8 acres</li> <li>▪ Loss at culverts &lt;0.1 acre</li> </ul>	<ul style="list-style-type: none"> <li>▪ Loss at culverts &lt;0.1 acre</li> <li>▪ 0.7 acres</li> <li>▪ Loss at culverts &lt;0.1 acre</li> </ul>	<ul style="list-style-type: none"> <li>▪ Loss at culverts &lt;0.1 acre</li> <li>▪ 0.7 acres</li> <li>▪ Loss at culverts &lt;0.1 acre</li> </ul>



## 4.4 HUMAN ENVIRONMENT

### 4.4.1 Heritage Resources

#### *Alternative A - No Action Alternative*

The No Action Alternative would not change the existing situation described in **Chapter 3 - Heritage Resources**.

#### *Effects Common to the Action Alternatives*

##### *Direct, Indirect and Cumulative Effects*

As stated in Chapter 3, there are two cultural resources on the National Register of Historic Places in the area of potential effect: the Mullan Trail and the Northern Pacific Railroad grade. The Mullan Trail would be directly affected by Alternative C. Snowmobile Reroute #1 for Alternative C would follow the Mullan Trail for most of its length, although much of the trail on the Idaho side has already been compromised by road building that probably occurred sometime in the last 40 years. If switchbacks were constructed for the snowmobile reroute, about 1200 feet of the Mullan Trail would be disturbed by trail construction on the north side of Runt Mountain. Tree cutting along the remaining Mullan Trail would widen the existing trail from about 6 feet to 25 feet, or about 2.4 acres of total tree removal. No wheeled motorized use would be allowed along the snowmobile reroute. The other action alternatives would not directly impact the Mullan Trail, but indirect and cumulative effects would occur within the view-shed of the Mullan Trail from timber harvest for ski runs and lifts.

The Northern Pacific railroad grade on the south side of Runt Mountain (FS 4208) would not be used for any of the action alternatives (**Figures 2-1, 2-2 and 2-3**). However, the Northern Pacific railroad grade on the north side of Runt Mountain (FS 3026) would be affected by Alternatives B and C. The proposed lift and runs for Alternatives B and C on the north side of Runt Mountain would end at the railroad grade. Winter use of the railroad grade would convert from snowmobile and cross-country use to use by downhill skiers. The action alternatives would alter the width of the railroad grade where cut-slopes are regraded to ease transitions from the ski runs to the railroad grade. The cultural intrusions of the ski lift and runs would occur within the view-shed of the railroad grade. These cultural intrusions would be added to other cultural intrusions along the railroad route, such as Interstate 90, and the BPA transmission line.

Existing use of the railroad grade would continue under Alternative D, and regrading along the abandoned railroad grade is not expected. Forest roads FS 4208 and 3026 would remain open to wheeled motorized use under all action alternatives.

One other proposed project would affect the railroad grade, the Touch America Fiber Optic Project. Fiber optic cable would be buried in the railroad bed on the Montana side of Lookout Pass and into the interstate highway fill on the Idaho side of the pass. Revegetation of the railroad grade is expected to minimize the visual impact of the fiber optic line. The combined effect of the LPSRA action alternative and the Touch America Fiber Optic Project is not expected to adversely affect the cultural integrity of the railroad grade.

### **Consistency with the Forest Plan and Regulatory Framework**

The proposed action meets forest plan and other applicable standards since existing cultural resources will maintain scientific, social, and historical values, since existing resources have been inventoried or will be before ground disturbance and since Indian tribes have been consulted.

### ***Comparison of Alternatives***

No changes in cultural resources are anticipated under Alternative A, the No Action Alternative. Alternatives B and C would affect the Northern Pacific railroad grade and Alternative C would affect the Mullan Trail. The width of the railroad grade would be altered for Alternatives B and C where cut-slopes are regraded to ease transitions from the ski runs. Forest roads FS 4208 and 3026 would remain open to wheeled motorized use under all action alternatives. The cultural intrusions of the ski lift and runs would occur within the view-shed of the railroad grade. These cultural intrusions would be added to other cultural intrusions along the railroad route, such as Interstate 90 and the BPA transmission line.

Alternative C would require modification of the Mullan Trail for Snowmobile Reroute #1 over St. Regis Pass. The reroute may require construction of switchbacks on the north side of Runt Mountain to allow groomer and beginner snowmobile access. Trees along the Mullan Trail would also need to be cut for snowmobile groomer access.

## **4.4.2 Recreation**

### ***Alternative A - The No Action Alternative***

The impact of the No Action Alternative may be a decline in the LPSRA market share, as other ski areas provide new skiing experiences, expand, and upgrade equipment. Blacktail Ski Area, approximately 100 miles north of Missoula, was opened in 1998 with all new facilities. A major expansion of Lost Trail Ski Area, 90 miles south of Missoula, was approved in 1997. Discovery Ski Area, 90 miles east of Missoula, has been authorized to expand its facilities. Crowding at LPSRA, a lack of newer equipment and dining experiences, and inadequate access to advanced-intermediate terrain may cause skiers to seek recreation at other family-oriented areas.

The No Action Alternative would not create the predicted impacts to noncommercial dispersed recreation opportunities listed below under “Effects Common to the Action Alternatives”. Hunting, hiking, backcountry skiing, and snowmobile opportunities would remain the same as the existing condition.

### ***Effects Common to the Action Alternatives***

The expansion of the LPSRA permit area would increase the land use directly affected by the ski area on National Forest Lands (**Figures 2-1, 2-2 and 2-3**). Indirect and cumulative effects would occur at nearby communities, other ski areas in the region, and to both summer and winter dispersed recreation activities.

The action alternatives summarized in **Chapter 2 – Alternatives**, would have the following direct effects:

- Increased parking area, ski runs, and restaurant space to enhance the skiing experience;
- Increased lift capacity, with two additional chairlifts serving the north and south sides of Runt Mountain;
- Decreased crowding in lifts lines and on ski runs, increasing safety and reducing the potential for collisions;
- Added incentive to visit the ski and recreation area to use the visitor center, overnight accommodations, and RV parking;
- Reroute of two snowmobile trail segments under Alternative C and one reroute under Alternative B;
- Primitive Roads A and B, and Primitive Trail A would be closed to snowmobiles but open to cross-country skiers, reducing user conflicts and increasing safety;
- Additional north-slope skiing with better snow conditions;
- Increased opportunities for advanced-intermediate and expert skiing;
- Slightly less opportunities for off-area backcountry skiing;
- Widening part of an expert cross-country trail on the east side of Runt Mountain to downhill ski runs (Primitive Trail A);
- Under Alternative C, a decrease in user conflicts and increase in safety for the annual snowmobile “Poker Run” (congestion and traffic at the LPSRA parking lot would be decreased);
- For some visitors, the new lodge facilities and upgraded status of the ski area may detract from the quaint feel of the existing historic lodge and small-town atmosphere at the ski area. Alternatively, other visitors welcome the proposed changes because they view the existing lodge as run-down and the existing lift and other facilities as crowded;
- During years when the ski area is open during Thanksgiving weekend, there would be fewer hunting opportunities on the north and south sides of Runt Mountain; and
- Prior to Thanksgiving weekend, hiking, hunting, and wildlife viewing would possibly be enhanced by increased openings in the forest.

Indirect and cumulative effects of the action alternatives include:

- An unknown incremental increase in dispersed summer and winter recreation outside the ski area boundary because of the enhanced facilities at LPSRA (visitor center, overnight accommodations, and RV parking area) and activities being promoted by the ski area. Summer and winter recreation includes cross-country and backcountry skiing, snowmobiling, hiking, hunting, berry picking, wheeled motorized use, wildlife watching, and mountain biking;
- Increased impacts to trails, campsites, and dispersed recreation experiences as a result of the increased use listed above;
- Potential increased conflicts between different types of recreation users, such as motorized versus non-motorized users;
- Alternative C, with Snowmobile Bypass #1 over St. Regis Pass, would encourage more snowmobile use in the St. Regis Basin and state line backcountry areas than the other action alternatives;
- Additional snowmobile use in the St. Regis Basin and state line backcountry may in cause: 1) increases in snowmobile/cross-country skier conflicts; 2) decreases in cross-country skiing opportunities because skiers would be discouraged from using the area by the increases in snowmobile traffic and noise; 3) increases in avalanche incidents and rescue efforts;

- A potential incremental increase in backcountry skiing in the St. Regis Basin and state line backcountry as a result of lift assistance back to the Lookout Pass base area from the north and south sides of Runt Mountain;
- Potential use restrictions in the St. Regis Basin because of increased year-round recreation; and
- Potential increases in visitation to LPSRA area over other family-oriented day-use ski areas in the region.

The social and economic impacts of the incremental increases in use are discussed in **Chapter 4 - Socioeconomics**.

#### **Direct, Indirect, and Cumulative Effects**

The summary above lists the main direct, indirect, and cumulative effects of the action alternatives. The associated environmental consequences and changing experience consequences that may result from the LPSRA action alternatives are reflected in the issues that were identified in public comments on the LPSRA Scoping Document and DEIS (see Section 1.7 in **Chapter 1**). The impact discussion below focuses on issues identified in comments from the public on the action alternatives.

#### **Impacts of Increased Recreation**

The positive contribution of the ski area and its increased use was extolled by several members of the public in scoping comments. The ski area is viewed by those commenting as *“an important source of recreation for our economically-depressed area...it is an important link in our tourism draw”*. Other comments stated that *“With the demise of mining and lumber in our county, one of the few things left is a great variety of outside recreational opportunities. Lookout Pass has been one of these opportunities for over 50 years and should be allowed to expand and continue”*. The continued viability of the ski area and Free Ski School was also mentioned as a concern.

The action alternatives would enhance the attractiveness of the area for people seeking lift-assisted skiing, mountain biking, motorized, or primitive recreation. In contrast, recreation users seeking primitive recreation may be deterred by the additional development on Runt Mountain.

Some recreation users may use the lodging as a base for primitive or motorized recreation, increasing the use of surrounding areas. The amount of increase in dispersed recreation because of the action alternatives is difficult to predict or measure, but it is anticipated to be a fraction of the existing trends in use.

In the winter, skiers, snowmobilers, cross-country, and backcountry skiers are anticipated to use the overnight and conference facilities. Their use of the nearby area may increase by a small amount.

The use of roads and trails would change under the action alternatives as shown in **Figures 2-1, 2-2 and 2-3**. Snowmobile Reroute #1 over St. Regis Pass under Alternative C would maintain groomed snowmobile trail access between the Taft Exit, Montana and Shoshone Park, Idaho. The absence a groomed snowmobile trail between Montana and Idaho under Alternative B may create an increase in demand for snowmobile parking at Lookout Pass to access the St. Regis Basin and Taft Exit. The existing groomed snowmobile trail along the abandoned railroad grade over Lookout Pass would remain open under Alternative D.

The action alternatives would continue to allow snowmobilers and cross-country skiers to access the St. Regis Basin from Lookout Pass via Snowmobile Reroute #2. The increased use of the ski area by snowmobilers and cross-country skiers may create an increase in traffic along FS 18591 and Snowmobile Reroute #2 to the St. Regis Basin. This increase in use may create an increased chance of avalanche encounters in avalanche-prone areas west of the proposed ski area in the St. Regis Basin.

In the summer and fall, the lodging and visitor center may encourage an increase in driving on primitive roads, wheeled motorized recreation, hiking, mountain biking, wildlife watching, and hunting from the area. The overnight and conference facilities may be used by those involved with the “Jeep Jamboree”, which is centered at Shoshone Park, about one mile northwest of the ski area. The ski area owners anticipate that Route of the Hiawatha bicycle trail use will increase in the next 8 years, regardless of the LPSRA action alternatives. Summer use increases because of the action alternatives are also difficult to measure, but are anticipated to be a small fraction of the existing use.

Businesses serving Shoshone and Mineral County areas are expected to increase and expand as the area becomes more popular for all recreation uses. Some of this increase may be related to the expansion of LPSRA (see **Chapter 4 - Socioeconomics**). There would be more business for retail stores, gas stations, restaurants, and bars as recreation use in the area increases. Motel use may decrease in the surrounding area because of the added overnight facilities at LPSRA.

There is adequate private land in the region for local businesses to develop or expand. However, no private land is available for development within one mile of the ski area. The nearest private land is at a lower elevation in the Mullan Valley, where it is not readily accessible to the ski area.

Nearby communities have the opportunity to grow and profit from recreation. However, the ski area is not expected to initiate a large influx of recreation development or subdivisions (see the discussion of potential subdivision development in **Chapter 4 – Socioeconomics**). Ski area expansion would be one of several features in the area that would draw additional recreation development. Other features drawing recreation to the area are its mining history and dispersed recreation in nearby forested areas, such as hiking, mountain biking, wildlife watching, wheeled motorized recreation, hunting, and fishing.

#### Impacts to the Ski Area

The LPSRA action alternatives would increase the volume and variety of ski terrain. The amount of advanced-intermediate and expert skiing available would increase by about three times compared to the existing condition. Crowding would be reduced by new ski lifts, ski runs, parking, and lodge facilities. Safety would be enhanced and the chance for collisions would be reduced by reducing lift lines and ski run congestion. Skiers of different abilities would no longer compete for the same runs and the single lift. Dispersing skiers over the hill would help reduce lift lines, and decrease the probability of collisions.

The economic benefits of the LPSRA action alternatives are discussed in **Chapter 4 – Socioeconomics**.

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### Impacts to Existing Recreation Use

Several public comments stated that the ski area expansion should not be completed at the expense of existing recreationists, such as snowmobilers, cross-country skiers and backcountry skiers. Impacts to existing recreation users are discussed below.

#### Backcountry Skiing

The action alternatives would provide lift-assisted skiing on the north and south sides of Runt Mountain in an area that receives some backcountry (telemark and cross-country) use. Forested and open glades of Runt Mountain are used for backcountry “tree skiing”, powder skiing, and solitude. Backcountry skiers typically access these slopes from the existing chair lift at LPSRA. Skiers use the slopes of Runt Mountain or ski along the Montana/Idaho divide to slopes in the St. Regis Basin and beyond. This form of primitive recreation in a natural setting would be compromised in the proposed permit area by the developed ski runs, lifts, and downhill ski traffic.

Although some primitive winter recreation experiences may be lost in the area of the action alternatives, others may be enhanced by improved access to the western St. Regis Basin for backcountry skiing. The trip back to the base area from the St. Regis Basin and other north-side areas would be shortened by the availability additional ski lifts on the north and south sides of Runt Mountain. Tree skiing between runs and backcountry skiing outside the permit boundary would remain available under the action alternatives.

#### Cross-country Skiing on Trails

Several cross-country trails are located on the north and south sides of Runt Mountain (**Figure 1-2**). The shared snowmobile trail (FS 3026 and 4208) and an expert cross-country trail (Primitive Trail A) on the west side of Runt Mountain would be directly affected by the ski runs and lifts related to the action alternatives. In addition, Primitive Roads A and B, and Primitive Trail A would be closed to snowmobile use, but open to cross-country skiing.

The shared snowmobile trail along an abandoned railroad grade (FS 3026 and 4208) is groomed for snowmobile and cross-country use. Snowmobile reroutes proposed for each alternative are discussed under “Snowmobiling” below.

The expert cross-country trail (Primitive Trail A) would be affected by Alternative B more than Alternatives C and D. About 2800 feet of the trail would be crossed or reconstructed into new downhill ski runs under Alternative B, whereas about 700 feet would be crossed or reconstructed under Alternatives C and D. The downhill ski runs would change the setting of the expert cross-country trail from a primitive to developed skiing experience, increasing the amount of ski traffic and decreasing the sense of solitude. However, the action alternatives would also widen the trail, making it easier for telemark and expert cross-country skiers to navigate.

The closure of Primitive Roads A and B, and Primitive Trail A to snowmobiles by signing and snow fences would increase the sense of solitude and enhance the primitive recreation experience for cross-country skiers along these routes. These routes are currently open to snowmobiles and there is very little separation of use.

## Snowmobiling

The closure of Primitive Roads A and B, and Primitive Trail A to snowmobiles by signing and snow fences would decrease the number of trails available to snowmobiles. However, these roads and trails are not currently heavily used and do not reach a particular destination unavailable by other routes.

The entire railroad grade (FS 4208 and FS 3026) would remain open to motor vehicle use during the summer and alternative routes would not be required. Snowmobiles would be allowed across the parking lot in winter and snow removal/storage would be planned to accommodate this use. Reroutes #1 and #2 will be closed to wheeled motorized use under a Forest Service road closure separate from the LPSRA proposed action.

All of the action alternatives would include Reroute #2, which would allow cross-country skiers and snowmobiles to pass below the St. Regis lift on the south side of Runt mountain (**Figures 2-1, 2-2 and 2-3**). Alternative B would eliminate snowmobile access on the railroad grade near the proposed ski facilities on north side of Runt Mountain (**Figure 2-1**). No alternative groomed snowmobile trails would be built to allow access between Montana and Idaho under Alternative B. Snowmobile Reroute #1 under Alternative C would widen and groom an existing trail over St. Regis Pass along two possible routes (**Figure 2-2**). Alternative D would maintain the existing groomed snowmobile trail along the abandoned railroad grade across Lookout Pass (FS 3026 and FS 4208 in **Figure 2-3**).

**Reroute #1 under Alternative C:** Snowmobile Reroute #1 would involve upgrading and grooming an existing 4-wheel drive trail over St. Regis Pass. The alternative trail would replace the groomed trail along an abandoned railroad grade on the north side of Runt Mountain (Forest Road 3026). The following would be maintained or enhanced:

- Access from Lookout Pass: The vast majority of snowmobilers traveling into the St. Regis Basin start at Lookout Pass and proceed south on FS 4208, especially when snow is scarce at lower elevations. The snowmobilers park at the designated snowmobile parking area at Lookout Pass that is plowed by the ski area.
- Access to the St. Regis Basin and State Line Area: Many of the snowmobilers coming out of Mullan, Idaho currently travel from Shoshone Park on the railroad grade, then turn onto a primitive trail near the northwest side of Runt Mountain (Reroute #1). This primitive trail is not currently groomed, but packed by snowmobilers accessing the St. Regis Basin and the state line area. This route is a short-cut to St. Regis Basin and state line area, the destination of most snowmobilers using the trail from Mullan, Idaho.
- Fewer User Conflicts: Currently the annual "Poker Run" by snowmobiles over Lookout Pass must cross the LPSRA access road. A Forest official has directed traffic in past years of the "Poker Run". Snowmobiles would not cross the LPSRA access road under Alternative C.
- Cross-country use: Cross-country skiers do not generally use the railroad grade on the north side of Runt Mountain (FS 3026). Established cross-country and shared use cross-country/snowmobile trails are located on the south and west sides of Runt Mountain.

**Reroute #2:** Snowmobile Reroute #2 would be a groomed trail located on the south side of Runt Mountain below the proposed St. Regis Lift and associated ski runs. The existing groomed snowmobile trail follows Forest Road 4208. Snowmobiles and cross-country skiers exit FS 4208 and travel up FS 18591 to the St. Regis Basin. Forest Road 18591 would be crossed by the proposed ski runs and lift. To prevent user conflicts, snowmobile and cross-country ski traffic would be routed for 1015 feet around the ski area below Forest Road 18591. The following would be maintained:

- Parking for snowmobiles at Lookout Pass;
- The route to the St. Regis Basin from Lookout Pass;
- The “Lookout Loop” that traverses from Shoshone Park, Idaho to Taft, Montana. Under Alternative C, Reroute #2 would link Reroute #1 with FS 18951 and FS 4208 (the abandoned railroad grade in Montana). The “Lookout Loop” would remain open for the “Poker Run” snowmobile event. This alternative route would eliminate the need for traffic control over the LPSRA access road during the “Poker Run” snowmobile event.

#### Snow Safety and Avalanches

LPSRA has been classified as a Class C avalanche site, which means there is a low probability of avalanche hazard (LRI, 1996). No known avalanches have occurred within the ski area boundary or the proposed ski area boundary. Known avalanche areas are west of the proposed expansion area in the St. Regis Basin.

Avalanche hazards are not expected to be a problem in the area directly affected by the action alternatives. However, an increase in visitation to LPSRA by off-area skiers and snowmobiles could increase visitation to the backcountry, thereby increasing avalanche-related incidents in the St. Regis Basin. LPSRA will not conduct avalanche control and other ski patrol activities outside the proposed LPSRA permit boundary. Avalanche warning signs have been placed along some of the trails leading to the St. Regis Basin, but additional signs along Snowmobile Reroute #1 may be needed. Currently, the IPNF provides reports on backcountry avalanche conditions during the winter. The reports are available via telephone or IPNF internet web site.

#### Driving for Pleasure

The cumulative effects area contains numerous primitive roads open to motorized use in the summer. Closure of primitive trails and roads to wheeled motorized use will take place regardless of the LPSRA action alternatives. The closure of non-FS system roads took place in 2001 under a Forest Service action separate from the LPSRA proposed action. Roads and primitive 4-wheel drive trails with a FS system designation remained open to wheeled motorized use. Special Use Permits, such as the permit for the Jeep Jamboree, would not be affected by the road closure. Therefore, the opportunities for driving for pleasure would not be affected by the action alternatives.

#### Summer and Fall Primitive Recreation

Existing hiking, mountain biking, hunting, and wildlife viewing experiences would be affected by:

- Increased openings in the forest, allowing easier access to the north and south sides of Runt Mountain; and
- Views of Runt Mountain from nearby roads and trails would be altered (see **Chapter 4 – Visual Resources**).
- Potential increases in the number of other users, altering the sense of solitude and other primitive recreation experiences.

#### Cumulative Effects

One project was recently completed in the cumulative effects area: the Snowstorm Canyon Project Timber Sale (IPNF, 1991). The Snowstorm Canyon Project was a timber sale adjacent and north of the existing ski area on the north and south sides of the South Fork of the Coeur



d'Alene River. The timber sale involved commercial thinning, road construction and road reconstruction. Monitoring results showed that the tree thinning along existing and potential summer and winter trails did not have any long-term adverse effects to snow play areas for winter users. There was significant concern from the public to maintain the primitive road system. The IPNF left the majority of the affected primitive roads open for motorized access.

Two other projects are proposed within the cumulative effects area: 1) Touch America Billings to Yakima Fiber Optic Project (TA, 2000); and 2) the North Fork St. Joe River Project (IPNF, 1999). The Fiber Optic Project would involve installing fiber optic cable along FS 4208 and within the Interstate 90 right-of-way. Traffic control measures would be implemented during construction and no impacts to recreation resources are expected from the project.

The North Fork St. Joe River Project would affect recreation resources in the St. Joe River drainage southeast of Lookout Pass. An increase in recreation use in the St. Joe project area has prompted a proposal by the Forest Service to increase developed camping areas and improve existing camp sites. In addition, the selected alternative provides vehicle access to within 0.5 mile to the newly restored Arid Peak Lookout, puts approximately 9 miles of road into long-term storage, obliterates approximately 16 miles of road, provides 129 miles of the 146 miles of existing ATV access, provides 218 of the 235 miles of existing motorcycle access, and provides 120 miles of the 128 miles of existing mountain bike access. Some of the mountain bike trails affected by the North Fork St. Joe River Project include the Route of the Hiawatha, which is managed by LPSRA. Use of the Hiawatha trail is expected to increase, regardless of implementation of the LPSRA action alternatives.

The overnight facilities planned for Lookout Pass may increase the attractiveness and use of nearby trails and roads. The existing road and trails, along with implementing the St. Joe Project and the LPSRA proposed action, would together enhance the recreation opportunities in the cumulative effects area, potentially encouraging more recreation use.

### **Consistency with Forest Plan and Regulatory Framework**

Forest Plan directives are discussed in detail in **Chapter 3 – Recreation**. The standards in the LNF Forest Plan (LNF, 1986a) state that *“The Forest will not significantly expand the capacity of developed recreation sites on the LNF during the next 10-year period”*. The 10-year period limiting the capacity of developed recreation sites ended in 1996. In contrast, the IPNF Forest Plan (1987a) states that *“The current level of developed recreation facilities and opportunities will be increased”*. Despite these contradictions in standards, the Idaho Panhandle and Lolo Forest Plans anticipated the expansion of developed recreation in Management Area 17 of the IPNF and Management Areas 8 and 9 of the LNF. The IPNF Forest Plan states that MA 17 will be managed for existing and proposed developed recreation sites where *“Priority will be given to public facilities over individual occupancy”*.

Management Area 8 of the LNF consists of portions of local ski areas that *“will not be expanded unless a clear public need exists and an environmental analysis supports the expansion.”* MA 9 in the LNF states that: *“Expansion of Lookout Pass Ski Area into this Management Area may be permitted, if the results of an environmental analysis indicates that such an expansion is in the public interest.”*

Alternative B would affect a small portion of Management Area 1 of the IPNF. MA1 consists of lands designated for timber production that are to be managed for roaded modified and roaded natural Recreation Opportunity Spectrum classes. Because MA 1 was designed to *“maintain a*

*diversity of recreation opportunities*", expansion of the ski area into MA1 would initiate a change in the Forest Plan for this portion of MA1.

### ***Comparison of Alternatives***

No changes in recreation resources or usage trends would occur under Alternative A, the No Action Alternative. A comparison of the alternatives and their effect on recreation resources is provided in **Table 4-6**. The action alternatives differ in the amount of available ski terrain and their effects on other recreation users. Differences in visual aesthetics are discussed in **Chapter 4 – Visual Resources**. The potential for increasing the market share of LPSRA versus other family-oriented ski areas is discussed in **Chapter 4 – Socioeconomics**.

Access to the abandoned railroad grade on the north side of Runt Mountain would continue under Alternative D. This use would not continue under Alternatives B and C. Alternative C would reconstruct a trail over St. Regis Pass for Snowmobile Reroute #1, a new groomed snowmobile trail that could encourage more snowmobile use and noise in the St. Regis Basin and state line backcountry areas than the other action alternatives. Additional snowmobile use in the St. Regis Basin and state line backcountry may in turn cause: 1) increases in snowmobile/cross-country skier conflicts; 2) decreases in cross-country skiing opportunities because skiers would be discouraged from using the area by the increases in snowmobile traffic and noise; 3) increases in avalanche incidents and rescue efforts.

**Table 4-6: Comparison of Action Alternatives - Recreation**

Issue	Alternative A No Action	Alternative B	Alternative C	Alternative D
Available ski terrain	No change	154 acres of additional runs	90 acres of additional runs	87 acres of additional runs
Changes in primitive vs. developed recreation	No change	259 acres added to developed recreation for Special Use Permit area.	120 acres added to developed recreation for Special Use Permit area.	109 acres added to developed recreation for Special Use Permit area.
Increased recreation	Increased crowding	<ul style="list-style-type: none"> <li>Positive economic effects.</li> <li>Increase in dispersed recreation outside the ski area by those using lodging, lifts, and visitor center at Lookout Pass.</li> <li>Increased dispersed recreation outside the ski area may increase avalanche encounters and user conflicts.</li> <li>Potential use restrictions in the St. Regis Basin because of increased year-round recreation.</li> <li>Potential increases in visitation to LPSRA area over other family-oriented day-use ski areas in the region.</li> </ul>	<ul style="list-style-type: none"> <li>Positive economic effects.</li> <li>Increase in dispersed recreation outside the ski area by those using lodging, lifts, and visitor center at Lookout Pass.</li> <li>Increased dispersed recreation outside the ski area may increase avalanche encounters and user conflicts.</li> <li>Snowmobile Reroute #1 over St. Regis Pass may encourage additional use of the St. Regis Basin and backcountry along the Montana/Idaho divide.</li> <li>Potential use restrictions in the St. Regis Basin because of increased year-round recreation.</li> <li>Potential increases in visitation to LPSRA area over other family-oriented day-use ski areas in the region.</li> </ul>	<ul style="list-style-type: none"> <li>Positive economic effects.</li> <li>Increase in dispersed recreation outside the ski area by those using lodging, lifts, and visitor center at Lookout Pass.</li> <li>Increased dispersed recreation outside the ski area may increase avalanche encounters and user conflicts.</li> <li>Potential use restrictions in the St. Regis Basin because of increased year-round recreation.</li> <li>Potential increases in visitation to LPSRA area over other family-oriented day-use ski areas in the region.</li> </ul>
Effects to groomed snowmobile trails shared with cross-country skiers	No change	<ul style="list-style-type: none"> <li>Groomed snowmobile trail on north side of Runt Mountain closed at permit boundary (no alternative route provided).</li> <li>Groomed snowmobile/cross-country trail on south side of Runt Mountain rerouted next to lift station (Reroute #2).</li> <li>More demand for parking at Lookout Pass by snowmobiles unable to traverse Montana/Idaho divide on groomed snowmobile trails.</li> </ul>	<ul style="list-style-type: none"> <li>Groomed snowmobile trail on north side of Runt Mountain rerouted over St. Regis Pass, requiring trail construction (Reroute #1).</li> <li>Groomed snowmobile/cross-country trail on south side of Runt Mountain rerouted next to lift station (Reroute #2).</li> </ul>	<ul style="list-style-type: none"> <li>Groomed snowmobile trail on north side of Runt Mountain would remain unchanged.</li> <li>Groomed snowmobile/cross-country trail on south side of Runt Mountain rerouted next to lift station (Reroute #2).</li> <li>Snowmobiles would use parking lot to access trails in both directions.</li> </ul>
Effects to cross-country ski trails and shared use with snowmobiles	No change	<ul style="list-style-type: none"> <li>About 2800 feet of cross-country trail eliminated by ski runs on the west side of Runt Mountain (access for cross-country skiers retained).</li> <li>Primitive Roads A and B and Primitive Trail A closed to snowmobiles but open to cross-country skiers.</li> </ul>	<ul style="list-style-type: none"> <li>About 700 feet of cross-country trail eliminated by ski runs on the west side of Runt Mountain (access for cross-country skiers retained).</li> <li>Primitive Roads A and B and Primitive Trail A closed to snowmobiles but open to cross-country skiers.</li> </ul>	<ul style="list-style-type: none"> <li>About 700 feet of cross-country trail eliminated by ski runs on the west side of Runt Mountain (access for cross-country skiers retained).</li> <li>Primitive Roads A and B and Primitive Trail A closed to snowmobiles but open to cross-country skiers.</li> </ul>

### 4.4.3 Land Use and Access

#### ***Alternative A – The No Action Alternative***

The No Action Alternative would not change the existing situation described in **Chapter 3** - Land Use and Access. Existing traffic and land use patterns and trends would continue without influence from the action alternatives.

#### ***Effects Common to the Action Alternatives***

##### **Direct, Indirect, and Cumulative Effects**

For the action alternatives, land use in the area of direct effect would change from undeveloped to developed recreation. Undeveloped recreation has included snowmobiling, cross-country skiing, backcountry skiing, mountain biking, wheeled motorized recreation, wildlife watching, and hunting (see **Chapter 3** – Recreation). Other uses have been for wildlife and timber management (see **Chapter 3** – Wildlife and Vegetation).

Summer and fall hiking, mountain biking, and hunting access would possibly be enhanced by additional ski runs. Additional lodging, RV parking, and a visitor center would encourage additional year-round use. The cumulative effects area would experience a slight increase in attractiveness for home-site development and increased visitation. This would be additive to the existing plans for development and attractiveness of the area, as discussed in other sections of **Chapter 4**, such as Socioeconomics and Recreation.

LPSRA has experienced a 41% increase in downhill skier use over the last 20 years. The owners of the ski area estimate that if one of the action alternatives is implemented, skier use would increase in 8 years from the existing 281 visitors per day, 4 days per week, to 333 visitors per day, 6 days per week (see **Chapter 1 – Use Rates and Crowding**).

##### **Access**

All portions of the LPSRA action alternatives would take place on public lands administered by the USDA Forest Service (Idaho Panhandle and Lolo National Forests). If an action alternative is implemented, land ownership in the permit area would not change.

The 1000-foot long access road to the ski hill and adjacent snowmobile parking area near Interstate 90 would continue to be maintained by the ski area. The access road from I-90 would continue to serve the ski area adequately without upgrading. No new public wheeled motorized access routes would be added as part of the action alternatives.

The impacts of the proposed snowmobile reroutes are discussed in **Chapter 4** - Recreation. All Forest System (FS) roads would remain open in the cumulative effects area. Access to patented mining claims by their owners would be maintained.

##### **Traffic**

A year-round average of about 5,500 vehicles per day traverse Lookout Pass on Interstate 90 from Saltese, Montana, to Mullan, Idaho (MDT, 1999 and ITD, 1999). In comparison, an average of about 225 cars travel to LPSRA when the ski area is open (Phil Edholm, 7/17/00, pers. comm.). The action alternatives are expected to increase ski area use from 281 skiers per day 4 days per week to about 333 skiers per day 6 days per week. This increase would

represent approximately 42 additional vehicles (about 267 total) traveling Interstate 90. Ski traffic would therefore increase on Interstate 90 by a very small amount (about 0.8%).

Traffic to the ski area during the summer is currently about 128 cars per day. About 59 cars per day are drawn by the bicycle concession and 69 cars are drawn to the visitor center. Most of the visitor center use is by people traveling through the region anyway, not drawn specifically by the visitor center. The visitor center use is anticipated to increase, but not draw additional vehicles to the region. The increased use of the bicycle concession, overnight lodging, and RV use is expected to draw additional visitors to the LPSRA. This summer use is expected to bring about 75 additional cars per day along Interstate 90 in 8 years, an increase of about 1.4%. The increase in traffic from vehicles during construction of the LPSRA action alternatives is expected to be less than 36 cars per day, or a 0.6% increase in traffic on Interstate 90.

This projected winter and summer increases in traffic on Interstate 90 may occur with or without the expansion of LPSRA. The increase in traffic because of the LPSRA action alternatives is not expected to affect traffic safety on Interstate 90, or the ability of law enforcement and emergency vehicles to manage traffic and traffic accidents on Interstate 90. Increased law enforcement and emergency facilities would not be needed because of the action alternatives.

For all of the alternatives, the primitive roads at the ski area would remain closed to public motorized use. No new public access roads would be constructed for wheeled motorized use as part of the action alternatives. Some of the ski trails and runs may be used by mountain bikers, hikers, and hunters. Alternative snowmobile trails and proposed trail and road closures are discussed in **Chapter 4, Recreation**.

#### Parking

The existing parking lot holds 260 cars. Crowding in the parking lot has been a problem on weekends, holidays, and special events. Approximately 200 cars, 4 buses, and 20 trucks with snowmobile trailers are parked at the existing parking lot on weekends and holidays. The projected increase in vehicles because of the LPSRA action alternatives would add 42 cars from skiers to the parking lot during the winter and 75 cars in the summer. Snowmobile enthusiasts, cross-country, and backcountry skiers may also stay at the overnight facilities, increasing the demand for parking by 8 cars per day. The proposed one-acre parking area, with a capacity of 120 vehicles, is predicted to be adequate for most weekends and holidays during the winter. Snowmobile users would continue to use the existing snowmobile parking area. The proposed parking lot would be more than large enough to accommodate the predicted increase in summer and winter users.

#### Land Use

With expansion of the ski area, National Forest Lands adjacent to the existing ski area would undergo tree removal and construction of chairlifts. The area of the action alternatives would be designated for winter and summer recreation use. Winter recreation would be enhanced by additional chair lifts, ski runs, lodge, visitor center, and overnight facilities. Summer and fall recreation, in the form of hiking, mountain biking, wildlife viewing, and hunting, would be maintained or enhanced in the area of direct and indirect effects. The lodge, overnight facilities, bicycle rental, shuttle service, and RV parking area would be open in the summer.

Additional recreation development would preclude the area of direct effects from future management for other dispersed winter recreation uses, such as snowmobiling and cross-

country skiing. Recreation impacts are discussed in **Chapter 4 – Recreation**. Land use impacts in nearby roadless areas are discussed in **Chapter 4 – Roadless Areas**.

Land use in the cumulative effects area on private lands could be affected by an incremental increase in subdivisions and development. Businesses could be benefited by increased visitors. The increase in visitation and development in the area because of the action alternatives is difficult to measure, and would be additive to the existing plans for off-area development and attractiveness of the area for recreation. Potential development pressures and the economic effects of the action alternatives to local businesses are discussed in **Chapter 4 - Socioeconomics**.

#### Cumulative Effects

One timber sale project was recently completed in the cumulative effects area: the Snowstorm Canyon Project Timber Sale (IPNF, 1991). The Snowstorm Canyon Project was a timber sale adjacent and north of the existing ski area on the north and south sides of the South Fork of the Coeur d'Alene River. No changes in land ownership occurred because of this project. Most forest roads have remained open to motorized use after this project was completed.

Two other projects are proposed within the cumulative effects area: 1) Touch America Billings to Yakima Fiber Optic Project (TA, 2000); and 2) the North Fork St. Joe River Project (IPNF, 1999). The Fiber Optic Project would involve installing fiber optic cable along FS 4208 and within the Interstate 90 right-of-way. No change in land ownership or access would occur because of the Fiber Optic Project.

The North Fork St. Joe River Project would affect portions of the St. Joe River drainage southeast of Lookout Pass. Recreation access improvements and timber sale activities proposed for this project are discussed in two sections of **Chapter 4 – Recreation and Vegetation**. The timber sale would not change the land ownership status of the project area.

The land ownership within the cumulative effects area would not change because of the LPSRA action alternatives and the other activities in the cumulative effects area. Access for recreation is being altered in the cumulative effects area, as discussed in **Chapter 4 – Recreation**.

#### Consistency with the Forest Plan and Regulatory Framework

To implement one of the action alternatives, a Special Use Permit would be required from the USDA Forest Service under the National Forest Ski Area Act of 1986 (16 USC 497b; FSM 2700-92-13) (see **Chapter 1 – Purpose and Need**). The permit would be issued for a term of 40 years as provided for in the Act and 36 CFR 251.56. Potential Forest Plan changes regarding land use are discussed in **Chapter 1 – Forest Plan Changes**.

The IPNF completed an "Access Management Environmental Assessment" for the Coeur d'Alene River Ranger District (IPNF, 1998). The EA evaluated eight access management areas within the District. The importance of motorized recreation in the Forest was acknowledged in the document. The EA recommended that some gated roads would be opened and some unmaintained roads would be reconstructed and maintained. In addition, some off-road snowmobile use would be permitted in addition to groomed snowmobile routes.

The action alternatives would improve access in the ski area by implementing measures in the Forest Service "Accessibility Guidebook for Ski Areas Operating on Public Lands" (USDA,

2000b). The guidebook contains directives for complying with the ADA and Section 504 for ski areas on National Forest System lands.

### ***Comparison of Alternatives***

No changes in land use and access would occur under Alternative A, the No Action Alternative. Land use would change under the action alternatives from undeveloped to developed recreation. The Forest Service Special Use Permit boundary would be 594 acres under Alternative B, 455 acres under Alternatives C and 444 acres under Alternative D. Alternative snowmobile access routes around the ski area are discussed in **Chapter 4 - Recreation**.

Wheeled vehicle access and anticipated increases automobile traffic would be the same for all action alternatives. Traffic on Interstate 90 because of the action alternatives is expected to increase by about 0.8% in the winter and 0.6% in the summer. This projected winter and summer increase in traffic on Interstate 90 may occur with or without the expansion of LPSRA. The increase in traffic because of the action alternatives is not expected to affect traffic safety on Interstate 90, or the ability of law enforcement and emergency vehicles to manage traffic and traffic accidents on Interstate 90. Increased law enforcement and emergency facilities would not be needed because of the action alternatives.

#### **4.4.4 Socioeconomics**

##### ***Alternative A - The No Action Alternative***

The impact of the No Action Alternative may be a decline in the LPSRA market share, as other ski areas provide new skiing experiences, expand, and upgrade equipment. Blacktail Ski Area, approximately 100 miles north of Missoula, was opened in 1998 with all new facilities, and a major expansion of Lost Trail Ski Area, 90 miles south of Missoula, was approved in 1997. Discovery Ski Area 90 miles east of Missoula, is also planning an expansion. Crowding at LPSRA and a lack of varied terrain may cause skiers to seek recreation at other family-oriented areas.

Under the No Action Alternative, the direct, indirect, and cumulative effects discussed below for the action alternatives would not occur.

##### ***Effects Common to the Action Alternatives***

###### **Direct and Indirect Effects**

Increased visitation to the ski and recreation area is expected as a result of the action alternatives. As stated in **Chapter 1 – Predicted Future Use**, the number of skiers at LPSRA is expected to increase by 78% over the next 8 years. This would be realized by an increase in visitors from 22,500 skiers per year (281 skiers, 4 days per week) to 40,000 skiers per year (333 skiers, 6 days per week). The number of summer users for the ski and recreation area bicycle concession is expected to double in the next 8 years. This increase in use is expected to bring a small, but measurable increase in spending to areas near the ski area.

The expanded ski area would provide a wider variety of ski terrain, reduce crowding, provide education and visitor information, and overnight facilities. Economic impacts of the action alternatives are expected to include:

- A temporary increase in construction employment for nearby contractors,

- Increased employment by the ski area for construction and operation of the new facilities,
- Increased local-area expenditures by new employees and skiers new to LPSRA,
- Increased taxes paid by the ski area, and
- Increased special use fees paid by the area to the USDA Forest Service, a portion of which would be rebated back to the affected counties.

The estimated impacts on employment, income, local expenditures, and taxes discussed in the following sections are general approximations of the direct and indirect economic impacts of the action alternatives. Subsequent rounds of indirect and induced impacts on local-area economics are not estimated. For small, generally rural counties, the expenditure multipliers for calculation of indirect and induced effects of expenditures are generally very small.

It is not expected that the action alternatives would have detectable impacts on major governmental infrastructures such as schools, roads, or emergency services. While the expected increased popularity of LPSRA may in the future lead to some increase in associated support businesses such as lodging facilities, or vacation/residential development in the area, the degree to which such development would or would not occur is unknown at this time. Very little private land is available for lodging and vacation home development near Lookout Pass. The following sections detail the expected economic impacts of the action alternatives, and provide some perspective on the magnitude of the expected effects, if any, on the economy of Mineral and Shoshone Counties.

#### Effects on Employment

Currently, LPSRA operates 80 to 85 days per ski season and about 150 days during the summer. Most employees are currently from Mullan and Wallace, Idaho. For the action alternatives, workers and contractors would be hired from the local region whenever possible, so the demographics of those working in the local area and at the ski area is not expected to change. Days of work per week during the ski season would eventually increase from 4 days per week to 6 days per week.

Existing and proposed employment at the ski area are summarized in **Table 2-3**. The ski area currently employs a total of 70 full- and part-time employees. As discussed in **Chapter 2**, the expanded facility would increase its employment by the equivalent of approximately 8.7 full-time year-round employees. Employment numbers related to tree removal, lodge design, engineering, and building construction are not included in this estimate.

The estimated cost of construction would be \$3,000,000 (Phil Edholm, pers. comm.). Of this total budget, a large portion would be used for purchase of lifts and equipment, and construction materials. Under the assumption that 50% of the construction budget would be direct wages, this budget would imply the addition of approximately 26 full-time construction jobs for the two years of construction. This number was derived assuming that construction wages would be about \$29,000, as construction wages per year for full-time employees are about \$25,980 in Montana (Research and Analysis Bureau, Montana Dept. of Labor and Industry, 1998) and \$32,032 in Idaho (Idaho Department of Labor, 2000). This number of jobs represents a 4.1% increase in construction jobs within Shoshone County, or a 3.6% increase for Shoshone and Mineral Counties combined over reported 1998 levels. It should be noted that this estimated increase in construction employment in the counties could be overstated if non-labor costs exceed the assumed 50% of total expansion cost.

In 1998, Shoshone County supported an estimated 6680 full and part-time jobs. Mineral County supported approximately 1743 full and part-time jobs in 1998 (see **Chapter 3** -



Socioeconomics). Under any one of the action alternatives, 8.7 additional (full-time equivalent) jobs would be added to this number because of ski area employment and 26 additional jobs would be added for the 2 years of construction. This increase would likely be added to the job base in Shoshone County, where most of the employees at LPSRA reside. The addition of ski area and construction jobs would be a 0.52% increase in the job base in Shoshone County. While measurable within this county, this anticipated change is extremely small.

In the 1990s, Shoshone County continued to experience unemployment rates above 10%. (U.S. Census Bureau, 2000). Given the small increase in employment anticipated from the action alternatives and the relatively high unemployment rates within the local area, increased employment demands resulting from any of the action alternatives should be easily met and welcomed by the existing labor pool within the area.

#### Effects on Income

It is estimated that under typical winter and summer operations, the expanded ski and recreation area would increase its annual payroll by \$120,000 over current levels (Phil Edholm, pers. comm.). This level of additional wages is small (0.12%) when compared to the nearly 103.6 million dollars of income estimated for Shoshone County in 1998 (see in **Chapter 3 - Socioeconomics**).

During the construction phase for the action alternatives, the \$1,500,000 in construction wages assumed above would represent a small portion (1.5%) of total personal income within Shoshone County, or 1.2% for the two counties combined.

#### Effects from Visitor Expenditures

The ski area owners estimate that upon completion of the action alternatives, total skier days at the area would increase from approximately 22,500 skier days to 40,000 skier days per year in 8 years. This estimated increase would both bring new visitors to the area and increase the frequency of visits by some existing LPSRA skiers. Associated with this increased use would be local-area expenditures on lift tickets, food, ski rental and instruction, and gas. A majority of this money would likely be spent at the ski area itself while some would also be spent in lodging, eating and drinking establishments, gas stations, and stores within Mineral and Shoshone Counties.

The projected average revenue per skier day at LPSRA was \$20.4 for the 1999/2000 season (Phil Edholm, pers. comm.). As shown in **Table 4-7**, the projected increase in visitors from about 22,600 skiers per year to 40,000 skiers per year would lead to an additional \$515,000 being spent by skiers per year, assuming spending rates increase by \$4 per skier. Rises in lift ticket prices are anticipated because of increased benefits and wages, not because of the action alternatives. Overnight lodging and visitor center revenue during the ski season are estimated to add \$29,000 of revenue per season.

The average revenue per day from summer visitors to LPSRA is \$12. The ski area owners predict that revenues from the Route of the Hiawatha will double in 8 years and visitor expenditures will grow from \$132,000 for the 150-day season to \$264,000. Summer revenue from the RV parking, overnight facilities, and the visitor center would be about \$54,000. Therefore, total yearly revenue at the ski area for summer and winter use would increase from about \$593,000 per year to \$1,323,000 per year in 8 years.

**Table 4-7: Visitor Expenditures at Lookout Pass Ski and Recreation Area**

Use	Existing Visitor Expenditures per Year (approximate)	Total Visitor Expenditures per Year after 8 years (estimate)
Winter – skiers	\$461,000	\$976,000
Winter – Overnight Facilities		\$29,000
Summer – Route of the Hiawatha and existing facilities	\$132,000	\$264,000
Summer – Overnight and RV Facilities		\$54,000
<b>Total</b>	<b>\$593,000</b>	<b>\$1,323,000</b>

Approximately 50% of the skiers at LPSRA come from Coeur d'Alene, 35% from North Idaho (other than Coeur d'Alene), 7.5% from Spokane, 4% from Missoula, and 3.5% from small towns in Western Montana located between Lookout Pass and Frenchtown, Montana (Granger, 1999). Based on these numbers, 61.5% of skiers at Lookout Pass live outside Shoshone and Mineral Counties in Coeur d'Alene, Spokane, and Missoula. If future visitation follows existing demographic trends, it is estimated that 61.5% of the additional expenditures in the next 8 years would come from skiers living outside Shoshone and Mineral Counties. Out-of-area skiers would therefore spend 61.5% (\$618,075) of the \$1,005,000 per year of winter use in 8 years. This estimated increase in direct local-area expenditures is a conservative estimate of the total additional expenditure impact on the economies of Mineral and Shoshone Counties. Not considered in the above estimate are expenditures made by non-local skiers within the two counties but not at LPSRA. Also not included are the secondary indirect and induced expenditure effects of the new non-local skier expenditures in the two counties.

Some of the additional expenditures, such as those for the Route of the Hiawatha, are expected to take place regardless of the action alternatives. The exact additional revenues predicted because of the ski area expansion alone would be very difficult to predict. However, if it is assumed that all of the additional expenditures are a result of the action alternatives, except those for the Route of the Hiawatha, then 61.5% of the additional summer expenditures (\$33,210 of the additional \$54,000) would be spent in 8 years by out-of-area recreationists because of an action alternative.

It is estimated that an increase of 31.5% of the user days would come from local-area residents. The expenditures of these individuals would not represent an infusion into the local economy. The money spent by local-area residents on trips to LPSRA would by-and-large be money that would be spent in the local economy anyway. Expenditures made by local residents for increased skiing at the expanded ski area would generally represent changes in where money is spent within the local economy, but not changes in the total level of spending in the local economy. There would, of course, be winners and losers in this spending shift, as some local resident spending would shift away from current patterns and establishments toward ski and bicycle-related spending.

During the construction phase, there would be an increase in local expenditures to the degree that equipment and supplies would be purchased locally, and that funds borrowed or used for these purchases would not have been otherwise used for purchases in the local economy. Considering the overall size of the local-area economy, the level of local expenditures during the construction phase would likely represent a very small portion of total expenditures in Shoshone and Mineral Counties.

### Effects on Taxes

As with any business, the action alternatives would contribute to the state and local tax base through an assortment of taxes. Additional tax revenue would flow to state and local governments through property, income and sales taxes. The amount of tax revenue would depend on the cost of personal property improvements, the increase in payroll and the profitability of the ski area. If all of the proposed buildings and ski lifts are constructed under the action alternatives, the ski area would pay additional property taxes on ski lifts, buildings and equipment. Because all of the proposed buildings would be in Idaho, Shoshone County would receive more property tax revenue after the expansion than Mineral County. Additional property taxes would include about \$34,717 per year in property tax to Shoshone County, Idaho, which represents a 0.3% increase in total county property tax income. An additional \$2918 per year in property tax would be paid to Mineral County, Montana, which represents a 0.08% increase in total county property tax income. The State of Montana would receive an additional \$345 per year in property tax, whereas the State of Idaho does not have a property tax.

### Effects on User Fees Rebated to County Government

Holders of USDA Forest Service special use permits pay user fees to the Forest Service. In the case of action alternatives, the fee would be 1.5% of gross sales at the area. Of this amount, 25% would be rebated from the Forest Service to the counties where the use is located. Using the revenue figures of **Table 4-7** for the ski area in 8 years, a 1.5% fee would require approximately \$19,845 in fees to be paid to the Forest Service per year, and \$4,961 would be rebated back to the counties.

### Effects on Affordability of Skiing

As stated in public scoping comments for this EIS (**Chapter 1 – Purpose and Need**), the affordability of skiing and the continuance of the Free Ski School are important to families economically unable to visit the larger destination resort areas. The LPSRA owners have stated that the action alternatives would not cause an increase in ticket prices. The increase in use would pay for construction and infrastructure costs. However, as payroll expenses go up, there would be an increase in lift ticket prices. Payroll expenses have been rising in the last few years because of the competition for skilled workers, cost-of-living increases, and health insurance benefits. The Free Ski School would continue at the ski area. The action alternatives are not expected to affect the affordability of skiing at LPSRA.

### Effects of Economic Viability of the Ski Area

The predicted increased visitation to LPSRA is expected to allow the ski area to be more economically viable (see **Chapter 1 – Purpose and Need**). LPSRA management estimates that about 25,000 skier visits per year are needed for the operation to remain viable in its current configuration. However, the current lodge and lift configuration does not allow for this number of skiers. The ski area (including expenditures for the action alternatives) is economically feasible with a 20% increase in skiers, or 27,000 skiers per year (Phil Edholm, pers. comm., 9/19/2000).

Many of the public scoping comments supported the LPSRA action alternatives and continuation of the ski area. However, some comments were not in favor of the action alternatives. As one comment asked: “Are we continuing to underwrite those that are interested in carving up our natural resources for profit?”

### **Cumulative Effects**

One other project is proposed within the cumulative effects area: the Touch America Billings to Yakima Fiber Optic Project. This would involve installing fiber optic cable along FS 4208 in Montana and within the Interstate 90 right-of-way in Idaho. The environmental analysis for the project indicated that the project would have a positive benefit to the employees and customers of Touch America (TA, 2000). In addition, project implementation would provide increased access to fiber optic telecommunications technology. During construction, local businesses may receive short-term economic benefit by providing goods and services to construction personnel.

The action alternatives would add to the existing recreation-based economy in the local area. LPSRA is a popular local and regional ski area, and based on projections, the expanded area would likely increase in popularity into the foreseeable future.

Increases in use at LPSRA may bring a corresponding decrease in use at other resorts in the region. The economic impact of the action alternatives to other ski areas is difficult to measure, as increases in skiing and snowboarding popularity, as well as increases in population, may offset impacts to other ski areas.

### **Subdivisions and Development Pressures**

Ongoing subdivision and development pressures in the vicinity of Lookout Pass may be affected to a certain extent by the LPSRA action alternatives, in combination with other social and economic factors. As stated in **Chapter 4 – Land Use**, there is adequate private land in the region for local businesses to develop or expand. However, no private land is available for development within one mile of the ski area. The nearest private land is at a lower elevations in the Mullan Valley. Other private lands are located in the Silver Valley of Shoshone County, Idaho and St. Regis River Valley of Mineral County, Montana (**Figure 1-1**).

Shoshone County housing growth has been very slow in the past 10 years. Only one subdivision has been proposed and approved in the last 10 years and only 50 housing starts were initiated in the last 5 years. The Superfund designation of the Silver Valley has dramatically affected the attractiveness of the area to new development, housing starts and in-migration according to Mark Magnus of the Shoshone County City/County Planning Department (personal communication, 9/7/00).

Mineral County housing growth has been more robust in the past 5 years. An in-migration of retirees and second home owners has spawned 10 to 15 subdivision proposals and about 30 to 50 single-family housing starts per year. Most of the development has occurred in the western part of the county and many of the second home owners are from Coeur d'Alene and Spokane (Wayne Marchwick, Mineral County Planner/Health Inspector, personal communication, 9/7/00).

Ski area expansion would be one of several features in the area that would draw additional subdivision development. Other features drawing home owners to Mineral and Shoshone Counties are its available private land, relatively low land prices, and dispersed recreation opportunities in nearby forested areas, such as hiking, mountain biking, wildlife watching, motorized recreation, backcountry skiing, hunting, and fishing.

### **Consistency with Forest Plan and Regulatory Framework**

The Idaho Panhandle and Lolo National Forest Plans (IPNF, 1987a; LNF, 1986a) do not contain standards particular to the social and economic realm. However, the Forest Plan is an understanding between the Forest Service and the public on how the National Forest will be managed. In this light, when actions are proposed that are inconsistent with the Forest Plan, amendments to the Forest Plan should be considered. As discussed in **Chapter 1 – Forest Plan Changes**, the action alternatives would initiate changes in the Forest Plan regarding visual resources, recreation, and timber harvest.

### ***Comparison of Alternatives***

The impact of Alternative A, the No Action Alternative, may be a decline in the LPSRA market share, as other ski areas provide new skiing experiences, expand, and upgrade equipment. Crowding at LPSRA and a lack of varied terrain may cause skiers to seek recreation at other family-oriented areas.

Impacts to socioeconomic resources would be about the same for each of the action alternatives. In comparison to the No-Action Alternative, construction and operational jobs would increase, taxes paid to local and state governments would increase, forest user fees would increase, and revenues to surrounding merchants would increase. These increases are expected because the action alternatives would enhance the attractiveness of the area for alpine (downhill) skiers.

The action alternatives may decrease the attractiveness of the area for backcountry skiers and hikers, as the north and south sides of Runt Mountain would be removed from a primitive to a developed recreation experience. Alternative C may increase snowmobile use in the St. Regis Basin and state line area, possibly discouraging some backcountry skiers from using the area. The increase in downhill ski use, overnight visitation and resulting expenditures is expected to be much greater than the decrease in backcountry visitation and resulting expenditures in the local economy.

The affordability of skiing would be the same under each action alternative. None of the action alternatives are expected to affect the affordability of skiing.

## **4.4.5 Roadless Areas**

### ***Alternative A - The No Action Alternative***

The No Action Alternative would not change the existing conditions of roadless areas in the area of direct, indirect, and cumulative effects. Although the action alternatives would not directly impact any nearby roadless areas, indirect and cumulative effects may occur because of increased recreation use. Under the No-Action Alternative, the nearby roadless areas would not experience an incremental increase in recreation use because of the action alternatives.

The natural integrity, apparent naturalness, remoteness, solitude, special features, manageability, and boundaries of nearby roadless areas would remain unchanged with this alternative.

## ***Effects Common to the Action Alternatives***

### **Direct Effects**

No direct effects to roadless areas would occur because of the action alternatives. No development on inventoried roadless areas is planned under any of the action alternatives.

### **Indirect and Cumulative Effects**

Three roadless areas are located within 6 miles of the ski area: “Stevens Peak 1142”, “Wonderful Peak 1152”, and “Roland Point 1146” (**Figure 1-1**). Stevens and Wonderful Peak have roadless acreage in both the Idaho Panhandle (IPNF) and Lolo National Forests (LNF), whereas Roland Point is entirely in the IPNF. The roadless areas are accessible from the Stateline Trail and other trails crossing Lookout Pass. Roads adjacent to the roadless areas also provide access to the roadless areas. Views of the action alternatives on the southern side of Runt Mountain would be available from higher elevations in the roadless areas.

Backcountry skiing, snowmobiling, hiking, hunting, mountain biking, and camping currently take place within the roadless areas. All-terrain vehicles (ATVs) are permitted in the roadless areas of the IPNF, but not on the LNF. Some of this recreation use is accessed from trails and roads originating at Lookout Pass. The addition of enhanced ski experiences, overnight lodging, RV parking, and visitor information services at LPSRA may encourage additional summer, fall and winter use of the nearby roadless areas. The owners of LPSRA predict that if one of the action alternatives is approved, the ski and recreation area winter use will increase in 8 years by 78%. Summer use of the Hiawatha trail concession is expected to increase by 100% in 8 years, regardless of the implementation of the action alternatives.

The existing number of recreation users accessing the roadless areas from Lookout Pass is unknown. Therefore, it is difficult to predict the increase in use the roadless areas would experience because of the action alternatives. The Stevens Peak Roadless Area is the closest roadless area to Lookout Pass. Compared to the other two nearby roadless area, the Stevens Peak Roadless Area is probably accessed more frequently from Lookout Pass. The IPNF Forest Plan (IPNF, 1986a) states that Stevens Peak is one of the few roadless areas where high-elevation winter access is relatively easy. The area can be reached from Lookout Pass within one hour when traveling on cross-country skis. This value is offset somewhat by the high natural avalanche hazard in the St. Regis Basin.

As stated in **Chapter 4 – Recreation**, Alternative C, with Snowmobile Bypass #1 over St. Regis Pass, would encourage more snowmobile use and noise in the St. Regis Basin and nearby roadless areas than the other action alternatives. Additional snowmobile use in these areas may in turn cause: 1) increases in snowmobile/cross-country skier conflicts; 2) decreases in cross-country skiing opportunities because skiers would be discouraged from using the area by the increases in snowmobile traffic and noise; and 3) increases in avalanche incidents and rescue efforts.

Most winter recreation users that access the backcountry from Lookout Pass probably do not reach the interior of the Wonderful Peak and Roland Point Roadless Areas because of the distance from the pass. In the summer, these roadless areas are currently accessible from roads adjacent to the roadless areas.

The action alternatives are expected to create an increase in dispersed recreation use to the Stevens Peak Roadless Area and a somewhat less increase in use at the Wonderful Peak and

Roland Point Roadless Areas. The increase in roadless area use is expected to be a small incremental increase, additive to an existing increase expected without the action alternatives. The increase in use is not expected to adversely affect wildlife or wildlife habitat in the nearby roadless areas.

No other roads, timber harvests, or ski areas are currently proposed or planned for the nearby roadless areas. No timber harvest has occurred in the roadless areas since 1986.

The lights from ski run groomers operating at night on the south side of the ski area would be visible from high elevation roadless areas south of the ski area.

#### Altered Experiences of Roadless Area Users

Views of the south side of Runt Mountain from nearby roadless areas are expected to be altered by the action alternatives. The new ski runs in what was dense forest would diminish the sense of natural integrity, apparent naturalness, remoteness, and solitude experienced by visitors to the nearby roadless areas. However, many of the affected backcountry ski enthusiasts would use LPSRA ski lifts for access to the backcountry and regularly patronize developed ski areas on National Forest lands. In addition, the sense of remoteness and solitude in the area has already been compromised by views of logging, forest roads, mining roads, the BPA powerline, and Interstate 90. No special backcountry features in the roadless areas would be affected by the action alternatives. The manageability of the roadless areas would not change because of the action alternatives.

#### Cumulative Effects

Two other proposed projects are within the cumulative effects area: 1) Touch America Billings to Yakima Fiber Optic Project (TA, 2000); and 2) the North Fork St. Joe River Project (IPNF, 1999). The Fiber Optic Project would involve installing fiber optic cable along the FS 4208 in Montana and within the Interstate 90 right-of-way in Idaho. No roadless areas would be affected by the Fiber Optic Project.

The preferred alternative for North Fork St. Joe River Project does not propose road construction in any of the inventoried roadless areas. The proposal includes prescribed burns in inventoried roadless areas. There would be a short-term decrease in apparent naturalness, and a long-term increase in natural integrity. Remoteness would be slightly reduced by increasing motorized access on 6.4 miles road adjacent to a roadless area. Solitude provided by the roadless areas would continue to decrease due to the increasing recreational use of the North Fork. There would be no effect on the special features or manageability and boundaries of the roadless areas. The effects to the special places in the North Fork are related to the effects on solitude.

The action alternatives at Lookout Pass would add to recreation use and decrease solitude at the North Fork roadless areas. The increase in use is expected from the added attractiveness of the ski area and its overnight facilities. However, increases in use of the Hiawatha Trail and other features in the North Fork are expected regardless of the ski area action alternatives. The increase in recreation use because of the action alternatives is expected to be a very small percent of the total recreation use of the North Fork.

### **Consistency with Forest Plan and Regulatory Framework**

The IPNF and LNF Forest Plans divided the Stevens Peak, Wonderful Peak, and Roland Point Roadless Areas into seven Management Areas that all have non-wilderness prescriptions. The prescriptions do not require development, but they do allow for it. The Forest Plans state that the Stevens Peak, Wonderful Peak, and Roland Point Roadless Areas should be managed for non-wilderness uses, such as recreation, wildlife, range and timber. However, the Plans did not make “irreversible and irretrievable” commitments to development.

The LPSRA action alternatives would not directly affect any of the roadless areas. Indirect and cumulative effects from the action alternatives are compatible with the directives in the Forest Plans.

### **Interim Rules 36 CFR 212 and 36 CFR 294**

Interim Rules 36 CFR Part 212 (Road Management Rule) and 36 CFR Part 294 (Roadless Conservation Rule) are described in **Chapter 3 - Roadless Areas**. All project alternatives are consistent with these interim rules. No development is proposed in the nearby roadless areas.

### **Comparison of Alternatives**

A comparison of the various alternatives regarding effects to roadless areas is provided in **Table 4-8**. The proposed expansion of LPSRA Permit Area would not directly affect any inventoried roadless area. Indirect and cumulative effects to nearby roadless areas could include increased visitation. There would also be a slight decrease in several wilderness characteristics because of the increased visitation and the visibility of the ski area from nearby roadless areas.

Alternative D would not create the potential effects to roadless areas predicted for Alternative C. Alternative C, with Snowmobile Bypass #1 over St. Regis Pass, would encourage more snowmobile use and noise in the St. Regis Basin, Idaho/Montana backcountry, and nearby roadless areas than the other action alternatives. Additional snowmobile use in these areas may in turn cause: 1) increases in snowmobile/cross-country skier conflicts; 2) decreases in cross-country skiing opportunities because skiers would be discouraged from using the area by the increases in snowmobile traffic and noise; and 3) increases in avalanche incidents and rescue efforts.

**Table 4-8: Comparison of Alternatives – Roadless Areas**

<b>Issue</b>	<b>Alternative A - No Action</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>
Roadless areas directly affected	0	0	0	0
Roadless areas indirectly affected	No change	Possible increase in recreation use	Possible increase in recreation use	Possible increase in recreation use
Wildlife habitat	No change	No key habitat affected	No key habitat affected	No key habitat affected
Wilderness characteristics:				
▪ Natural integrity	▪ No change	▪ Slight Decrease	▪ Slight Decrease	▪ Slight Decrease
▪ Apparent naturalness	▪ No change	▪ Slight Decrease	▪ Slight Decrease	▪ Slight Decrease
▪ Remoteness	▪ No change	▪ Slight Decrease	▪ Slight Decrease	▪ Slight Decrease
▪ Solitude	▪ No change	▪ Slight Decrease	▪ Slight Decrease	▪ Slight Decrease
▪ Manageability	▪ No change	▪ No change	▪ No change	▪ No change
Light Pollution in roadless area	No change	Grooming machines lights visible from some roadless areas	Grooming machines lights visible from some roadless areas	Grooming machines lights visible from some roadless areas
Snowmobile use	No change in existing use trends	Possibly less because groomed trail interrupted	Possibly more because groomed trail moved closer to roadless areas	No change in existing use trends



#### 4.4.6 Visual Resources

##### ***Methodology for Assessing Effects***

All of the alternatives were evaluated and compared with Visual Quality Objectives (VQOs) in the Idaho Panhandle and Lolo Forest Plans (IPNF, 1987a; LNF, 1986a). Conclusions about effects and relationships to Forest Plan standards were drawn from field visits, photography from highway viewpoints, and evaluations using information on cover type, and natural line, form, texture, and color that are the result of vegetative patterns, geology, and landform. Forest Service management direction is described in **Chapter 3 - Visual Resources**.

Two primary standards are used for determining direct impacts on scenic quality:

- Change from existing visual conditions; and
- Future visual quality achievement levels.

The Forest Service must also weigh the benefits of skiing opportunities versus the visual impact of ski runs and lifts. Openings in the forest canopy are an expected and welcome part of the scenic landscape to downhill ski enthusiasts that use developed ski facilities. In contrast, linear patterns in the forest canopy with a man-made appearance are an unwelcome addition to the scenic landscape for some viewers.

##### ***Alternative A – The No Action Alternative***

The “No Action Alternative” would not change the existing situation described in **Chapter 3 - Visual Resources**. The degree to which this landscape meets Forest Plan and inventoried Visual Quality Objectives (VQOs) would not change with this alternative. Changes to the scenery would be dependent on other types of management on and off of the forest, and on natural events such as floods, fires, earthquakes, and wind storms.

##### ***Effects Common to the Action Alternatives***

The action alternatives would change the appearance of the scenery by introducing new canopy openings and ground disturbance on the north and south sides of Runt Mountain. Variables influencing the visual effects of the action alternatives include viewer position (above or below in elevation), season, adjacent vegetation, other disturbance in the vicinity, slope, position on the landform, harvest method, site preparation, and ski run shape and size. These and other design features influence the degree to which the color contrast between ski runs and the surrounding area dominates a view. Not all of the features of each action alternative would be visible in any given view, because they would be all or partially screened by intervening landforms and trees from all but aerial views.

Additional light pollution from night skiing is not anticipated because night skiing is not proposed. The lights from ski run groomers operating at night may be visible from high elevations north and south of the ski area, east-bound viewers along Interstate 90 on the north side of Runt Mountain, and some portions of the eastern Mullan Valley.

##### **North Side Facilities**

The proposed expansion area on the north side of Runt Mountain is currently covered with a dense lodgepole pine forest (see **Chapter 3 – Vegetation**). Some of the proposed expansion area on the north side of Runt Mountain would be visible as foreground along about 1.5 miles of

Interstate 90 adjacent to the existing ski area. This view is now dominated by the steep cut slopes of I-90 and an old railroad grade (FS 3026) parallel to Interstate 90. The I-90 cut slopes are rocky cut banks with concrete reinforcement in some areas. The railroad grade creates a break in the tree cover above the I-90 cut slopes. Only small portions of the lower forested slopes of Runt Mountain are visible from I-90. As discussed below, Alternative B would be more visible to viewers on I-90 than Alternatives C or D.

The north side of Runt Mountain and Interstate 90 may be viewed as middle-ground and background from private lands in the eastern Mullan Valley. Interstate 90 and the north side of Runt Mountain may also be visible as middle-ground and background from the numerous trails and roads at higher elevations north of the ski area near the Montana/Idaho divide. All action alternatives are expected to be visible from high elevation areas due north of the ski area. As discussed below, Alternative B is expected to be more visible to viewers in the eastern Mullan Valley than Alternatives C and D. However, the modification in landscape may be somewhat expected in an area with numerous roads, trails, highways, mining and logging activity.

The treeless slopes of the north-slope ski runs would be more visible in winter, when open expanses of snow contrast with the thick lodgepole forest. Visual resource mitigation measures, such as “feathering” the edges of runs when harvesting trees, is less feasible in lodgepole forests than in other types of coniferous forests. The tall thin lodgepole pines cannot be thinned next to forest openings without causing excessive blowdown. However, the ski runs would take advantage of existing forest openings and where possible, create more natural-looking openings.

### **South Side Facilities**

The south slopes of Runt Mountain are covered with open glades, rock outcrops, and a mixed conifer forest (see **Chapter 3 – Vegetation**). Several existing trails and roads traverse the base of the mountain above Interstate 90 (**Figure 1-2**). The old railroad grade (FS 4208) above I-90 is visible as foreground from I-90. However, the existing ski runs on the southeast side of Runt Mountain are not visible from Interstate 90. In addition, the proposed ski runs and lifts on the south side of Runt Mountain would not be visible from Interstate 90. The view of the proposed runs and lift would be blocked by the heavily-timbered southeast ridge of Runt Mountain.

The ski runs and one chair lift on the south side of Runt Mountain would be visible as foreground and middle-ground from some of the well-used roads and trails in the upper St. Regis drainage (**Figures 2-1, 2-2, and 2-3**). The runs and ski lift would be visible as middle-ground and background from the Bitterroot Divide trails southeast of Lookout Pass. Several roadless areas located along the Bitterroot Divide allow views of the south face of Runt Mountain and Interstate 90 (see **Chapter 3 - Roadless Areas**). No private residences or developed public facilities in Montana have views of the proposed expansion area. The ski runs through the mixed-conifer forest would take advantage of existing forest openings and where possible, create more natural-looking openings. Considering these mitigation measures and the current cultural features near the ski area (power lines, existing primitive roads and trails, and Interstate 90) the ski area is not expected to dominate the scenery for more distant viewers.

### **Cumulative Effects**

The cumulative effects of the action alternatives and management of private and public lands would result in changes that may be subtle or strong in appearance and not necessarily subordinate to the natural-appearing backdrop and landscape character. Developments on private lands and timber harvests on public and private lands are expected to continue.

Changes in the area from mining, recreation developments, and subdivision of lands for recreation and permanent homes are likely to remain for a long time. These visible characteristics gradually become a part of the expected cultural elements of the landscape. LPSRA is one example of such developments.

In the last 100 years, mining and logging activity have affected the public and private forest lands in the Lookout Pass area. The resulting effect is that much of the area looks (and is) disturbed in comparison with its natural state. Such changes are considered intrusive upon the natural environment and visually unappealing by some people, especially before vegetation recovers from land disturbance. Since most views to middle-ground and background include forested lands, effects to the forest would be cumulative with the LPSRA action alternatives.

Two other proposed projects are within the cumulative effects area: 1) Touch America Billings to Yakima Fiber Optic Project (TA, 2000); and 2) the North Fork St. Joe River Project (IPNF, 1999). The Fiber Optic Project would involve installing fiber optic cable along the FS 4208 and within the Interstate 90 right-of-way. Mitigation techniques, such as soil replacement and revegetation, are expected to reduce visual contrasts. The preferred alternative for North Fork St. Joe River Project would meet Forest Plan Visual Quality Objectives.

#### **Compliance with the Forest Plan**

Each of the alternatives was evaluated regarding compliance with the Forest Plans (IPNF, 1987a; LNF, 1986a). The evaluation indicated that the action alternatives cannot meet the IPNF Visual Quality Objective of "Retention". The ski trails and lifts would be visible from sensitive view points (Interstate 90) and they would not be completely naturally appearing. Some, but not all runs may look like avalanche chutes or rock slide areas. The shapes of outside runs curve in shapes that are distinctive for a ski area.

As discussed below, Alternatives B, C and D would not meet the "Retention" VQO for the north side of Runt Mountain. Implementation of any action alternative would require a Forest Plan amendment. The VQO would be changed from "Retention" to "Modification" for Alternative B, or "Partial Modification" or "Modification" for Alternatives C and D.

Management Area 24 in the LNF would be subject to tree clearing (but no road building or excavation) along the Alternative Snowmobile Route #2. The VQO for MA-24 of "Retention" would be maintained, as trees would block views of the proposed ski area development from the alternative snowmobile route.

#### **Comparison of Alternatives**

A comparison of the differences between the various alternatives regarding visual resources is provided in **Table 4-9**. The action alternatives would change the appearance of the scenery by introducing new canopy openings and ground disturbance on Runt Mountain. Alternative D affect a smaller area than the other action alternatives on the north side of Runt Mountain and would have less visual impacts. There would be more acres of disturbance for Alternatives B and C than for Alternative D. In addition, Alternatives B and C would be more visible from Interstate 90, as they would disturb slopes that face east-bound traffic on Interstate 90. Several ski slopes and a ski run would be visible from Interstate 90 for Alternative B, whereas Alternative C would reconstruct a trail on the north side of Runt Mountain for safe travel on Snowmobile Reroute #1. Trail reconstruction for Snowmobile Reroute #1 would include either several switchbacks, or a long traverse above Bitterroot Springs, depending upon the design

chosen. The switchbacks or traverse would create a cut and fill sinuous feature at least 25 feet wide that would be visible to east-bound travelers on Interstate 90.

The ski runs and lift for Alternatives C and D would be difficult to see from most of the viewers along Interstate 90, as the steep timbered slopes and retaining walls above the interstate block the uphill view. However, some portions of the ski runs for Alternatives C and D may be visible to east-bound travelers. Alternatives B, C, and D are expected to be visible from high elevation areas north of the ski area and the eastern portion of the Mullan Valley.

The proposed developments on the south side of Runt Mountain would be about the same for all of the action alternatives. Alternatives C and D would have the same footprint on the south side of Runt Mountain. None of the ski developments on the south side of Runt Mountain are expected to be visible from Interstate 90. They would be visible from backcountry roads, trails, and roadless areas.

Each of the alternatives was evaluated regarding compliance with the Forest Plans (IPNF, 1987a; LNF, 1986a). The evaluation indicated that the Alternatives B, C, and D cannot meet the IPNF Visual Quality Objective (VQO) of "Retention". The ski trails and lifts would be visible from sensitive view points (Interstate 90 on the north side of Runt Mountain and portions of the eastern Mullan Valley) and they would not be completely naturally appearing. Alternatives B and C would be more visible from Interstate 90 than Alternative D. Some, but not all runs may look like avalanche chutes or rock slide areas. The runs would curve in shapes that are distinctive for a ski area. Because of these visual impacts, implementation of Alternatives B, C, and D would require an IPNF Forest Plan amendment. The VQO for the management areas listed in **Table 4-9** would be changed from "Retention" to "Modification" for Alternative B, or "Partial Modification" or "Modification" for Alternatives C and D.

Management Area 24 would be subject to tree clearing (but no road building or excavation) along the Alternative Snowmobile Route #2. The VQO for MA-24 of "Retention" would be maintained, as trees and a ridge line would block views of the proposed ski area development from the alternative snowmobile route.

**Table 4-9: Comparison of Alternatives – Visual Resources**

Issue	Alternative A No Action	Alternative B	Alternative C	Alternative D
Compliance with "Retention" Visual Quality Objective for MA-1, MA-17, and MA-24	Does not meet Retention	Does not meet Retention for MA-1 and MA-17	Does not meet Retention for MA-17	Does not meet Retention for MA-17
Changes in Forest Plans	No change required	Initiates change to Forest Plan (Retention to Modification)	Initiates change to Forest Plan (Retention to Partial Retention or Modification)	Initiates change to Forest Plan (Retention to Partial Retention or Modification)
Additional acres of white openings in forest cover during winter	No change	145 acres	91 to 93 acres	85 acres

## 4.5 OTHER DISCLOSURES

### 4.5.1 Adverse Environmental Impacts that Cannot be Avoided

Implementation of any of the action alternatives would result in some adverse environmental effects. The severity of the effects would be minimized by implementation of the mitigation measures described in **Chapters 2 and 4**.

#### ***Air Quality***

Temporary effects on air quality due to slash burning are unavoidable under the action alternatives. The effects would be minimized by scheduling burning in accordance with the directives of the Montana/Idaho Airshed Group.

Traffic emissions along Interstate 90 are expected to increase by a small amount in response to the action alternatives. The added emissions would be statistically immeasurable in comparison to the existing traffic emissions.

#### ***Soil Productivity***

Losses of soil productivity are unavoidable in areas covered by permanent structures and features, such as the proposed buildings, parking lot, and lift towers. Itemized disturbed areas for these features are provided in **Chapter 2** and **Table 2-1**. Lands covered by permanent structures and features would be allocated for use other than natural land productivity. Erosion of soil from other disturbed areas would be minimized by Best Management Practices, but a small amount of soil may be eroded, displaced or compacted prior to revegetation.

#### ***Water Resources***

A small, temporary increase in sediment delivery may occur during culvert installations. However, Best Management Practices, monitoring and mitigation measures, and INFISH standards for road construction, culvert installation and timber harvest would reduce the potential for sediment delivery to streams.

Increased water yields from timber harvest on the proposed for ski runs and lifts would be very small (<1%).

#### ***Fisheries***

Potential impacts to water quality from the action alternatives could be the result of sediment increases from land disturbance. However, because mitigation measures, BMPs, and INFISH standards would be in place, impacts to downstream water quality and fishery resources are not expected

#### ***Wildlife***

Impacts of expanding the ski area would result from conversion of forest habitat to herbaceous communities on ski runs and other expansion facilities. Very little lynx habitat would be affected by the action alternatives. Indirect impacts would occur from increased recreation use in the Lookout Pass area.

### ***Vegetation***

Under the action alternatives, timber would be removed from between 85 and 145 acres. These acres would no longer be available for timber production as long as LPSRA operates. Forest fuels and future stand character may be affected by the function of ski runs as improved access and as fire breaks. No impacts are expected to old growth, range resources, noxious weeds or endangered, threatened and sensitive plant species.

### ***Recreation***

The action alternatives would replace primitive recreation with developed recreation on Federal land. Snowmobile use on Runt Mountain would be altered by alternative groomed snowmobile trails. Several cross-country ski trails would be closed to snowmobiles. During years when the ski area is open during Thanksgiving weekend, there would no hunting allowed within the boundaries of the LPSRA permit area.

Indirect and cumulative effects of the action alternatives would include an increase in recreation use in the Lookout Pass region. There would also be potential increases in visitation to LPSRA over other family-oriented day-use ski areas in the region.

### ***Land Use and Access***

With action alternatives, automobile traffic is expected to slightly increase on Interstate 90. Land use would be changed in the area of the action alternatives from undeveloped to developed winter recreation. Summer and fall hiking and hunting would possibly be enhanced by additional trails. The cumulative effects area would experience an increase in attractiveness for home-site development and increased visitation.

### ***Socioeconomics***

Construction and operation of the action alternatives would create several new jobs for the local economy. Many of the new jobs would be temporary or seasonal, but would help unemployment conditions.

Increased visitation to the ski area is expected as a result of the action alternatives. This increase in ski area use is expected to bring a small, but measurable increase in spending to areas near the ski area.

### ***Roadless Areas***

The proposed expansion of LPSRA Permit Area would not directly affect any inventoried roadless area. Indirect and cumulative effects to nearby roadless areas could include increased visitation and a slight decrease in several wilderness characteristics. The following roadless area wilderness characteristics are expected to be slightly affected by the increased use of the roadless areas and visibility of the proposed ski runs and lift from the roadless area: natural integrity, apparent naturalness, remoteness, and solitude.

### ***Visual Quality***

The action alternatives would affect visual resource from some viewing points along Interstate 90, nearby Forest roads and trails, and nearby roadless areas.

For the action alternatives, the scenic integrity levels would be changed from “Retention” to “Modification” or “Partial Modification”. This change in visual management would initiate a minor change in the IPNF Forest Plan (1987a). The visual management criteria would only change for the portion of management area affected by the action alternatives.

#### **4.5.2 Relationship Between Local Short-term Use and Long-term Productivity**

In this section, short-term effects (beneficial and adverse) of the alternatives are discussed in terms of their implications for the long-term stability and productivity of the environment in the vicinity of the action alternatives.

The owners and past owners of LPSRA have been committed to long-term management of the ski area. This use accommodates a high level of recreation visits on a relatively small portion of the Idaho Panhandle and Lolo National Forests. Each of the alternatives continues this long-term commitment of the local environment to a relatively high density recreation use. Continued development and expansion creates an opportunity for a greater number of people to use the area.

The action alternatives would require timber harvest to create ski runs. This would increase the short-term supply of lumber. Once expansion is completed, the ski area would then not be managed for timber harvest. However, the land could return to long-term timber production in the future if recreational use of the land is discontinued.

#### **4.5.3 Irreversible and Irretrievable Commitments of Resources**

##### ***Irreversible Commitments of Resources***

Irreversible commitments of resources refers to non-renewable resources, such as cultural resources, or to those factors which are renewable only over long time spans, such as soil productivity.

Soil loss and displacement, particularly related to road and building construction, would occur as a result of any of the action alternatives. Overall, there would be some soil loss due to erosion and an increase in sediment production with any of the action alternatives, largely from road construction. The BMPs outlined in **Chapter 2** would be adequate to keep impacts within acceptable limits set forth in the Forest Plan and other jurisdictions.

Ski area development would represent a long-term commitment of the area to a relatively high intensity recreational use. However, should the time come when the ski area was no longer functioning, all facilities could be dismantled and removed and the area revegetated or allowed to return to a natural state. Roads and culverts can be removed and resources rehabilitated.

##### ***Irretrievable Commitment of Resources***

Irretrievable commitment applies to losses of production, harvest, or use of renewable natural resources. Vegetation loss in mature and overstory timber would result from ski run clearing. The visual resource would be irretrievably altered by the addition of lifts, ski runs, and a base facilities. The conversion of forested lands to ski runs reduces the potential timber yields from the forest by a fraction of one percent.

#### **4.5.4 Specifically Required Disclosures**

##### ***Effects on Threatened and Endangered Species, and Critical Habitat***

The action alternatives are not likely to adversely affect threatened or endangered species or critical habitat. The action alternatives may impact individual sensitive species and habitat, but would not likely contribute to a trend towards federal listing or cause loss of viability to the population or species.

##### ***Effects on Floodplains/Wetlands***

The action alternatives would have a small effect on wetland and riparian areas at stream crossings. The wetland portion of these crossings is a very narrow zone along the waters edge (approximately 2 feet wide) and the total impact for all crossings would total less than 0.1 acre. The riparian portion of these crossings is also relatively narrow (approximately 25 feet) and would total less than 0.25 acre. Wetland vegetation would be trimmed to one foot in height and skied over when snow covers the wetland under the action alternatives. Under Alternative B, this would occur on 8 acres and on Alternatives C and D on 0.7 acre.

Impacts to floodplains would be limited to the stream crossing sites identified for culvert installation. The total impact on floodplains would occur along less than 300 feet of perennial and intermittent streams (<0.1 acre). Culverts would be sized and installed according to Best Management Practices, which would reduce potential impacts. No change in flood elevations should occur at any of these locations.

##### ***Effects on Prime Farm Land, Range Land, Forest Land***

All alternatives are in keeping with the intent of the Secretary of Agriculture Memorandum 1827 for prime land. The proposed expansion area does not contain any prime farm lands or rangelands. "Prime" forest land does not apply to lands within the National Forest System. Under the action alternatives, National Forest System lands would be managed with sensitivity to the effects on adjacent lands.

##### ***Energy Requirements of Alternatives***

There are no unusual energy requirements for implementing the action alternatives. Electricity for the ski lifts would be supplied by the existing power line system.

##### ***Compliance with Section 504 of the Vocational Rehabilitation Act and the Americans with Disabilities Act (ADA)***

The permittee would be required to comply with all applicable provisions of Section 504 and the ADA. Compliance would be monitored through review of all construction plans and annual Operating Plans.

##### ***Effects on Social Groups (Environmental Justice Executive Order 12898, Feb. 11, 1994); Effects on Civil Rights and Equal Opportunity***

The action alternatives are not expected to affect civil rights to any degree, nor would the design, construction, or operation of the resort involve discrimination against any minority group or women. Proposed lifts and buildings would improve access for persons with disabilities. The USDA non-discrimination policy is described on **page iv** of this document.



## 4.6 PERMITS REQUIRED

A Special Use Permit would be required to implement any of the action alternatives. This permit would authorize additional development, construction, and operation of ski area facilities on National Forest System lands. The Special Use Permit would be granted under the authority of the National Forest Ski Area Act of 1986 (16 USC 497b; FSM 2700-92-13). The Act authorizes the Forest Service to issue term ski area permits "for the use and occupancy of suitable nordic and alpine skiing operations and purposes" (Section 3(b)). The Act also states that a permit "shall encompass such acreage as the Forest Service determines sufficient and appropriate to accommodate the permittee's need for ski operations and appropriate ancillary facilities" (Section 3(b)). The Permit would be issued for a term of 20 years as provided for in the Act and 36 CFR 251.56.

To evaluate the action alternatives, the Forest Service must:

- Consider the proposal for expansion of the LPSRA to provide additional downhill skiing opportunities.
- Determine whether or not the proposal is consistent with the objectives and standards of the Idaho Panhandle and Lolo National Forest Plans.

In addition, the Forest Service and other Federal, State, and local agencies have jurisdiction over certain aspects of the action alternatives. **Table 4-10** provides a comprehensive listing of the agencies with jurisdiction over the action alternatives and identifies their respective permit/authorizing responsibilities.

**Table 4-10: Regulatory Responsibilities**

Authorizing Action	Regulatory Agency
Special Use Permit	USDA Idaho Panhandle National Forests (IPNF)
National Environmental Policy Act (NEPA)	USDA Idaho Panhandle and Lolo National Forests; U.S. Environmental Protection Agency
National Historic Preservation Act	USDA IPNF and LNF; Montana and Idaho State Historic Preservation Offices (SHPO)
Native American Graves Protection and Repatriation Act	USDA Idaho Panhandle National Forests (IPNF)
American Indian Religious Freedom Act	USDA Idaho Panhandle National Forests (IPNF)
Clean Water Act; NPDES Stormwater Discharge Permit	Montana and Idaho Departments of Environmental Quality (MDEQ; IDEQ) (authorized for compliance review by the U.S. Environmental Protection Agency)
Clean Water Act; 404 Permit for Disturbance to Wetlands and Stream Crossings	U.S. Army Corps of Engineers
310 Permit for Stream Disturbances	Mineral and Shoshone County Conservation Districts
Clean Air Act	Montana and Idaho Departments of Environmental Quality (MDEQ; IDEQ) (authorized for compliance review by the U.S. Environmental Protection Agency)
Threatened and Endangered Species Act	U.S. Fish and Wildlife Service
Water Rights Appropriation Permits	Montana Department of Natural Resources and Conservation (DNRC)
Drinking Water System Construction or Modification	Idaho DEQ
Sewer System Approvals	Shoshone County Sanitarian; Idaho Department of Environmental Quality (IDEQ)

**Table 5-1: Comments and Responses on the LPSRA Draft Environmental Impact Statement**

Source of Comment	Comment	Response
<p>The Lands Council<sup>2</sup></p> <p>US Environmental Protection Agency<sup>19</sup></p>	<p><b>Purpose and Need</b></p> <p><b>Economic Analysis</b> The DEIS contains insufficient supporting basis... that the ski area expansion is needed to maintain or improve the economic base and recreation opportunities of the general area...There is no basis for the LPSRA management's claim that they need to accommodate 25,000 skier visits per year to stay in business...the ski area has been in business at a smaller scale for decades, and the conditions apparently haven't kept over 20,000 skiers per year from still using the area.<sup>2</sup></p> <p>It is not clear that skier and other recreational demand will support the expansion...Has there been any analysis, such as a survey, to determine whether or not there is public need/demand for this expansion, other than the general desire to stimulate economic activity?<sup>19</sup></p>	<p>Skier use information for LPSRA has shown there is a market demand and crowded situation at the ski area. <b>Chapter 1</b> of the DEIS and FEIS contains a discussion of the increase in skier numbers, which has represented a 41% increase in use over the last 20 years. The existing ski area has weekend crowding problems the ski runs, at the bottom of the chair lift, in the lodge, and in the parking lot. When the ski area was sold in 1992 by the Idaho Ski Club, the sale agreement stipulated that the new owners must attempt to expand the ski area.</p> <p>Within the Lookout Pass local market (2 hour drive), there are currently four other ski areas (Snow Bowl and Marshall Mountain in Montana and Silver Mountain and Mount Spokane in Idaho and Washington, respectively). Regional competitors would be any areas within 2 to 5 hours travel time and destination competitors are those more than 5 hours travel time. There are a total of 24 areas within the regional market, which encompasses Montana, Idaho, Washington, British Columbia, and Alberta. A comparison and market study of these ski areas was completed by Ecosign Mountain Resort Planners (1996). The study evaluated the features of each ski area in the regional market, historic visitation trends, and skier visit forecasts.</p> <p>The Ecosign (1996) ski area comparison revealed that only one other ski area within the regional market (Turner Mountain) moves fewer people per hour than Lookout Pass. The number of ski runs and the amount of advanced terrain at Lookout also ranks near the bottom of the local and regional market. The analysis of skier demand indicated that Lookout has had a demand penetration that greatly exceeded the supply penetration. The ratio between the demand and supply for Lookout reveals that the ski area is holding its own within the regional ski area market. The study states that smaller ski areas are expected to continue their successful competition in the region because their lift ticket prices are lower than the larger ski areas.</p> <p>There has been no survey regarding public need/demand for the expansion. The need for expansion is based on the past demand, user rates, and crowding at the ski area.</p>
	The DEIS does not adequately analyze the regional skier opportunities, the ability of existing ski areas to accommodate them, and the projected regional skier day increases...What are the negative impacts on Silver Mountain, Schweitzer, and 49 Degrees North ski areas when Lookout Pass expands? <sup>2</sup>	As stated in the DEIS and FEIS ( <b>Chapter 4 – Socioeconomics</b> ), increases in use at LPSRA may bring a corresponding decrease in use at other resorts in the region. The economic impact of the proposed action to other ski areas is difficult to measure, as increases in skiing and snowboarding popularity, as well as increases in population, may offset impacts of the proposed action to other ski areas.
	The economic analysis is too limited in scope and detail—relying on personal communications with Phil Edholm, whose economic credentials are never explained...A cost-benefit analysis is required by NEPA, this is not part of the DEIS. <sup>2</sup>	Phil Edholm, LPSRA owner and manager, developed the expansion plan based on a business plan and his many years in ski area management (see project file for resume). The use rates and crowding at the ski area also indicate sufficient demand to expand the ski area (see <b>FEIS Chapter 1 – Use Rates and Crowding</b> ).

Source of Comment	Comment	Response
Kootenai Environmental Alliance <sup>3</sup>	<b>Economic Analysis, continued...</b> The DEIS did not address the issue of high gas prices related to anticipated increases in visitors to the ski area...What data was used to calculate a 78% increase in skiers over the next 8 years, if current high gas prices continue to climb?... Would the increase in skiers and snowmobilers occur if gas were to stay above \$2.50 a gallon? ...The FEIS should analyze if the operation would remain viable if there are large increases in gas prices and there are poor snow conditions for 2 or more consecutive ski seasons if the expansion were to occur. <sup>3</sup>	Gas prices are difficult to predict and beyond the scope of the EIS. Variations in gas prices and snow conditions have occurred during the past 60 years and the ski area has weathered these changes. Snow survey information from Lookout Pass indicates that snow conditions on the pass have been consistently sufficient for skiing, even during low snowpack years (see snowpack information in project file).
The Lands Council <sup>2</sup>	<b>Crowding</b> There is no basis for the statement that people will stop coming unless LPSRA is permitted to expand...If crowding is an issue, then where does the concern about declines in users come from? <sup>2</sup>	The existing ski area has weekend crowding problems the ski runs, at the bottom of the chair lift, in the lodge, and in the parking lot (see <b>FEIS Chapter 1- Use Rates and Crowding</b> ). As crowding increases each year at LPSRA and other regional ski areas are allowed to expand, skiers are more likely to visit other ski areas than contend with crowded conditions at LPSRA.
The Lands Council <sup>2</sup>	The DEIS uses only 2 years to compare user days, it is likely that improved snow conditions between those two years was likely the cause of the 8.9% increase of skiers from the 1998-2000. The graph on page 1-9 actually shows a decrease in skiers since the 1995-96 season, with no proof that skier visits will actually increase. <sup>2</sup>	<b>Chapter 1</b> of the DEIS and FEIS shows the skier use data from 1953 to 2000 (see <b>FEIS Figure 1-3</b> ). This data shows an overall increase in skier use, with variations from year-to-year that can be attributed to snow conditions, economic trends, and overall trends in the ski business, such as the introduction of snowboarding.
The Lands Council <sup>2</sup>	The DEIS claims that the expansion will reduce overcrowding and the dangers of too many skiers, yet...won't making the area more attractive ultimately result in the same overcrowding and dangerous, only on a larger scale? <sup>2</sup>	The ski area expansion is based upon the anticipated and existing market share of LPSRA, which is primarily composed of skiers located within 100 miles of the ski area in northern Idaho, eastern Washington, and western Montana. The ski market in this area is expected to grow along similar trends as in the past. The proposed LPSRA expansion is expected to meet skier demand at the ski area in the foreseeable future, based upon ski market trends and trends in local population growth.
US EPA <sup>19</sup>	<b>Alternative C</b> We are not displeased with the selection of the preferred alternative as Alternative C due to its lesser environmental impact as compared to Alternative B...It appears to represent a modest expansion, and seems to be aligned with the environmental charter for ski areas ("Sustainable Slopes"), which LPSRA has endorsed. <sup>19</sup>	Comment noted.
Idaho Fish & Game <sup>1</sup>	<b>New Alternatives</b> We recommend that expansion be limited to a single new lift and retrofitting the existing lift to a triple-chair configuration. <sup>1</sup>	The alternative to upgrade the existing lift was considered by the Forest Service and eliminated from further study because of the reasons listed in <b>Chapter 2</b> of the <b>FEIS</b> (see <b>Section 2.2.4 – Upgrading the Existing Lift</b> ).

Source of Comment	Comment	Response
Idaho Fish & Game <sup>1</sup>	<p><b>New Alternatives, continued...</b>  Expansion should be limited to the north side of Runt Mountain (excluding Bitterroot Springs) because of the elk travel corridor, and lynx and wolverine potential use on the south side of Runt Mountain.<sup>1</sup></p>	<p>Elk and forest carnivores pass through the Lookout Pass area and down-slope areas to the east, however, the proposed expansion on the south side of Runt Mountain would have a negligible effect on wildlife movement. Elk would likely pass through the area before and after the skiing and snowmobile season. As stated in the <b>FEIS (Chapter 3-Wildlife)</b>, elk are quickly displaced from the study area in the fall during hunting season. The high density of roads and trails in and near the study area allow hunters relatively easy access, thereby rendering elk vulnerable to hunting mortality.</p> <p>As stated in the <b>FEIS (Chapter 4-Wildlife)</b>, wolverine may utilize habitat in the analysis area as part of a larger home range. However, conversion of high-elevation forest habitat to herbaceous and shrub-dominated openings would not affect the prey base of wolverine and would not affect potential denning habitat. The action alternatives may impact individuals and habitat, but would not likely contribute to a trend towards federal listing or cause loss of viability to the population or species.</p> <p><b>Chapter 4</b> of the <b>FEIS</b> also notes that the action alternatives would:</p> <ul style="list-style-type: none"> <li>▪ have negligible impacts on lynx foraging habitat;</li> <li>▪ affect areas with limited potential for lynx denning due to the scarcity of large woody debris; and</li> <li>▪ decrease the number of packed trails near the ski area but increase the acreage of packed ski runs on Runt Mountain.</li> </ul> <p>Carnivores competing with lynx would have greater access to areas affected by ski runs under Alternatives B, C, and D, but would have less snowmobile and cross-country trails to access other areas of Runt Mountain. Packed ski runs would cover a larger area under Alternative B (281 total acres) than Alternative C (217 total acres), Alternative D (215 acres), and Alternative A (127 total acres). However, Alternative A would maintain 74,386 feet of packed snowmobile and cross-country ski trails, whereas Alternative B would reduce this amount to 55,235 feet, Alternative C would reduce this amount to either 61,635 or 63,922 feet, and Alternative D would reduce this amount to 69,729 feet.</p> <p>Interstate 90 and the existing ski area currently act as barriers to lynx movement within 1 mile of the top of Runt Mountain. Lynx are anticipated to cross I-90 southeast of the ski area near Taft, Montana. The action alternatives would take place within 1 mile of Runt Mountain and are not expected to interfere with lynx crossing I-90.</p>
The Lands Council <sup>2</sup>	To alleviate crowding, an alternative should be considered for 7-day per week operations and incentives to draw people during the week. <sup>2</sup>	Operations at the ski area are proposed to increase from 4 days per week to 5 or 6 days per week, regardless of the proposed expansion. Incentives are already offered for skiing during the week, such as "2 for 1 Thursdays" and "Boomers Day Fridays".
IPNF/LPSRA/ Snowmobile club meeting and field trip <sup>24</sup>	Constructing a one-half mile extension of the "Dorsey Road" from the closed Snowstorm Daisy Timber Sale area to St. Regis Pass, was explored at the meeting...This alternative would require the placement of 3 large culverts, widening a portion of the existing road, expansion of the analysis area, and re-analysis of all environmental factors...Analysis of this route would necessitate the issuance of at least a supplement to the DEIS and extension of the NEPA timetable. <sup>24</sup>	This alternative snowmobile trail was considered during the field trip/meeting with the Snowmobile Club after release of the DEIS. However, this alternative was dismissed from further analysis because it would not address the recreation and wildlife issues of Alternative C raised during the DEIS comment period. This alternative would impact more of the St. Regis Pass recreation use and wildlife habitat area than Alternative C.

Source of Comment	Comment	Response
Shoshone Sportsman's Club <sup>27</sup>	<b>New Alternatives, continued...</b> The proposed expansion should be completed in smaller stages (at least through the preparation of two EAs/EISs) so that impacts can be observed before the next phase is initiated. <sup>27</sup>	The National Environmental Policy Act (NEPA) requires that all reasonably foreseeable actions be analyzed in the EIS to ensure evaluation of future direct, indirect, and cumulative impacts. The impacts of the proposed expansion will be monitored by the Forest Service during and after the proposed expansion, regardless of timing of construction. The Special Use Permit would require that any unforeseen impacts be remediated.
Shoshone Sportsman's Club <sup>27</sup>	<b>Shared Use of the Railroad Grade (FS Road 3026)</b> If downhill skiers and snowmobilers shared FS Road 3026, the snowmobiles could use the outer 8 feet of the road, which would be separated from the downhill skiers by bamboo poles and ribbon (plastic flagging)...at the narrowest portion of the road, there appears to be room to widen the road...With the following mitigation items, all participants agreed that the proposal could work and was the best solution for joint recreation use in the area: <ul style="list-style-type: none"> <li>• Cautionary signage and a speed limit would be posted along the snowmobile lane;</li> <li>• Poles and ribbon would be removed daily by the ski patrol. (The ski area operates 3 days per week, allowing unrestricted snowmobile use for the other 4 days of the week.)</li> <li>• Snowmobile trail grooming in the evenings and/or at night (as is their custom);</li> <li>• Groomers from Lookout Pass Ski Area would also groom the snowmobile lane as part of their normal work.<sup>24</sup></li> </ul> <p>The snowmobile shared-use proposal is supported by the Shoshone Sportsman's Club.<sup>27</sup></p>	This alternative was considered by the Forest Service and is discussed in <b>FEIS Chapter 2 – Section 2.2.4 – Dual Use of the Railroad Grade on the North Side.</b> The dual use alternative was not evaluated in further detail because: <ul style="list-style-type: none"> <li>▪ There is insufficient width along the railroad grade to accommodate both downhill skiers and snowmobiles; and</li> <li>▪ It is not possible to widen the railroad grade.</li> <li>▪ Alternative D addresses the St. Regis Pass recreation and wildlife issues raised in the DEIS comment period, by maintaining the existing railroad grade as a snowmobile trail and moving the lift and runs of Alternative C further up the mountain.</li> </ul>
Montana Dept. of Fish Wildlife & Parks <sup>4</sup>	The Montana Nightriders snowmobile club regard both action alternatives unacceptable because of the impacts that would occur to the groomed snowmobile routes in the area, especially re-route #1...After further discussions with the club, a shared-use approach was developed for FS Route #3026...MFWP supports this solution as long as the groomed trail system stays available to the public for snowmobiling....We assume that any signing needs or barrier needs would be covered by the applicant. <sup>4</sup>	This alternative was evaluated by the Forest Service and was not examined in further detail because of the reasons stated above and in <b>FEIS Chapter 2 –Section 2.2.4 – Dual Use of the Railroad Grade on the North Side.</b> The costs for signs directing snowmobiles and/or cross-country skiers to alternative trails would be covered by the applicant. (see <b>FEIS Chapter 2, Section 2.5.5 - Features Common to the Action Alternatives, Groomed Snowmobile Trails</b> ).
Mark Sverdsten <sup>22</sup>	[The north side of the railroad grade] looks like it is wide enough to ... accommodate all users and keep the railroad grade open [to snowmobiles]...Both alternatives B and C as written have the ski hill gaining and the x-c skiers and snowmobilers losing...this is unacceptable. <sup>22</sup>	This alternative was evaluated by the Forest Service and was not examined in further detail because of the reasons stated above and in <b>FEIS Chapter 2 –Section 2.2.4 – Dual Use of the Railroad Grade on the North Side.</b>

Source of Comment	Comment	Response
Idaho Fish & Game <sup>1</sup>	<p><b><u>BMPs, Monitoring and Mitigation Plans</u></b></p> <p>We recommend the standards and guidelines in INFISH be followed to minimize adverse effects to salmonids...The installation of culverts should be fitted to accommodate a 100-year flood event, including associated bedload and debris movement...timing of construction should be scheduled to avoid wet periods, silt fences should be utilized and disturbed areas should be re-vegetated with the appropriate mix.<sup>1</sup></p>	<p>As discussed in the <b>FEIS and DEIS, Chapter 2, Section 2.5.5 - Features Common to the Action Alternatives</b>, and <b>Chapter 4 – Soils, Water Resources, and Fisheries</b>, INFISH standards and guidelines would be followed for the project. Best Management Practices (BMPs), mitigation and monitoring measures, and INFISH standards would be used in culvert sizing and installation to reduce the potential for sediment delivery to streams. INFISH standard RF-4 states that culverts must be constructed to accommodate a 100-year flood. A representative of the IPNF would inspect culvert installations and ski run construction near streams to ensure compliance with BMPs and to identify any additional erosion control activities needed. Additional mitigation measures may include final grade control, water bars, silt fences and erosion control mats. Scheduling regrading for the drier portion of the summer would also reduce erosion on regraded slopes. Re-seeding would be required for all soil exposed during timber harvest, lift construction, regrading, or other activities using seed mixes approved by the Forest Service.</p>
The Lands Council <sup>2</sup>	<p>The IPNF and LNF have failed to adequately monitor the impacts of the Forest Plan implementation, as the Plans require...Therefore, the cumulative impacts on wildlife, fish, water quality, visual quality, and non-motorized recreationists of existing and ongoing development must be better disclosed in the EIS.<sup>2</sup></p>	<p>The LNF and IPNF have an ongoing monitoring program for all projects. Results of monitoring are presented in project reports and Forest Plan Monitoring and Evaluation Reports.</p>
The Lands Council <sup>2</sup>	<p>How does monitoring of BMPs and past mitigation measures assure that no further impacts (to water quality) would be caused by the expansion?<sup>2</sup></p>	<p>Monitoring of BMPs and mitigation measures helps ensure that BMPs are properly implemented and mitigation measures continue to be effective. Studies by the Forest Service (IPNF, 2000) and Montana DNRC (1998) have indicated that BMPs and watershed mitigation measure are effective in preventing adverse soil impacts and water quality effects.</p>
US EPA <sup>19</sup>	<p>We urge LPSRA to implement the principles of the environmental charter ("Sustainable Slopes") in all aspects of ski area design, expansion, operations, and maintenance.<sup>19</sup></p>	<p>LPSRA has committed to implement the principles of "Sustainable Slopes" in all aspects of their proposed expansion project (see <b>FEIS – Section 2.5.6 – Existing Conditions and Goals</b>).</p>

Source of Comment	Comment	Response
Kootenai Environmental Alliance <sup>3</sup>	<p><b><u>Water Resources</u></b></p> <p><b>Snowstorm Daisy Timber Sale:</b> There is insufficient analysis in the DEIS regarding how an additional 60 acres of clearcuts in the South Fork CDA drainage, together with the 439 acres of previous logging, would not have any cumulative, direct, or indirect effects to water quality and quantity....The potential increased water yields and peak flows should be analyzed for 499 total logged acres in the cumulative effect area.<sup>3</sup></p> <p>The DEIS states that the Snowstorm Canyon Project caused no significant increase in turbidity or sedimentation...Please disclose the results of the monitoring that validates this statement.<sup>2</sup> The Final EIS needs to reference any monitoring reports for the Snowstorm Canyon timber sale regarding water quality impacts to the South Fork Coeur d'Alene River.<sup>3</sup></p>	<p>The Snowstorm Daisy Timber Sale resulted in 68 additional acres treated than projected in the timber sale Environmental Assessment (EA). The difference in projected versus actual acres treated was due to errors in acreage estimates in the EA (caused by the small map scale). A review of the timber sale during Forest Service monitoring activities showed that mitigation of the timber sale was implemented (Williams, 1992). In the fisheries and watershed areas, the ID Team concluded that the effects of the changes in acreage were not significantly different than those discussed in the EA. This was based on an analysis of Equivalent Clearcut Acres (ECA). Sediment control on this sale exceeded even those required in the EA. The alternative as implemented was observed to result in less sediment production than was anticipated in the EA.</p> <p>The 68 additional acres of timber harvest for the Snowstorm Daisy Timber sale represents 0.8 of the South Fork Coeur d'Alene cumulative effects analysis area. The total timber harvest in the past 10 years within the analysis area therefore was actually 3.8 percent of the analysis area, not 3 percent as stated in the LPSRA DEIS (see Cumulative Effects, <b>FEIS Chapter 4-Water Quality</b>). This increase in acreage does not change the conclusions of the DEIS, which stated that the combined effect of the Snowstorm Daisy Timber Sale and the LPSRA expansion would not result in adverse effects to water quality and quantity.</p>
The Lands Council <sup>2</sup>	<p><b><u>Water Quality</u></b></p> <p>The DEIS does not assure that Water Quality Limited Segments will not be further polluted...and the actions will be consistent with clean-up plans.<sup>2</sup></p>	<p>The St. Regis River and South Fork Coeur d'Alene Rivers are listed as impaired waters under the Clean Water Act 303(d) regulations (see <b>DEIS and FEIS Chapter 4 – Water Resources</b>). Impacts to water quality in these rivers are not expected as a result of any of the LPSRA action alternatives because:</p> <ul style="list-style-type: none"> <li>• the area of disturbance is relatively small;</li> <li>• almost all disturbances are located away from streams and are separated by effective vegetated buffer areas which would prevent sediment reaching streams;</li> <li>• the number of culvert installations is low;</li> <li>• most culvert installations are temporary and are located in headwater swales and not streams;</li> <li>• upgrades and reconstruction of Primitive Road A (2100 feet), Forest Road 18591 (1300 feet), Primitive Trail A and Primitive Road B (11,400 feet) would reduce or eliminate existing erosion and sedimentation problems;</li> <li>• the specific mitigation measures proposed for this project combined with the BMPs and the INFISH standards;</li> <li>• inspection of all activities by IPNF personnel to establish compliance with mitigation measures, BMPs and INFISH standards and to identify any additional erosion control activities needed.</li> </ul>

Source of Comment	Comment	Response
The Lands Council <sup>2</sup>	<p><b>Water Quality, continued...</b>  Rain-on-snow events on metals mobilization and hazardous substances along the South Fork CDA drainage should be analyzed concerning potential cumulative effects of each alternative, past logging and road construction.<sup>3</sup></p>	<p>The cumulative effects of past logging, road construction, and the action alternatives are analyzed and presented in the DEIS and FEIS (see <b>Chapter 4 – Water Resources</b>). As stated above, adverse impacts to water quality of the South Fork Coeur d'Alene River are not expected because of the action alternatives. The proposed ski runs and lifts are not located in an area with high concentrations of metals or historic mine disturbances that produce high metal concentrations in surface water. Concentrations of metals and hazardous substances are not expected to increase in the river because of the action alternatives. Therefore, there would be no additive or cumulative effects to water quality in the river because of the action alternatives, regardless of what discharges occur downstream in the Silver Valley historic mining area.</p>
US EPA <sup>19</sup>	<p>The new septic tank/drain field will discharge dissolved pollutants, such as nitrate, to groundwater...Nitrates and some other pollutants are not removed during treatment, consequently the effects of surge winter time pollutant loadings to area groundwater should be more fully analyzed and disclosed in the FEIS.<sup>19</sup></p>	<p>The base area septic system would not impact surface water and groundwater quality due to its large distance from surface water and groundwater. The nearest surface water is over 1000 feet from the proposed septic system. Groundwater depth at the site has not been investigated and there are no nearby wells. However, groundwater is likely confined to fractures within the underlying bedrock and is expected to be deep below the surface, typical of high mountain settings. The nearest water wells are located over 4000 feet down-gradient from the proposed septic system and would not be affected by the proposed septic system. The design and permitting of the septic system must be approved by the Idaho Department of Health and Welfare, Panhandle Health District, Environmental Health office. The Department of Health and Welfare must determine that water quality would not be adversely affected by proposed septic systems prior to granting a septic permit. (See <b>FEIS Chapter 4 – Water Resources</b>).</p>
US EPA <sup>19</sup>	<p>The St. Regis River is listed as water quality impaired by the Montana DEQ for cold water fishery uses and aquatic life support. We recommend that the FS contact the MDEQ to be sure that the proposed actions are consistent with Montana's TMDL development.<sup>19</sup></p>	<p>Copies of the DEIS were sent to the Montana DEQ for their review and comment. The DEQ clarified their role in storm water discharge permitting and TMDL development, as described in <b>FEIS Chapters 3 and 4 – Water Resources</b>. As stated in <b>Chapter 3 – Water Resources</b>, siltation is listed as a parameter of concern for the St. Regis River, which is on the 303(d) list for developing TMDLs. The action alternatives are not expected to contribute silt to the St. Regis River because:</p> <ul style="list-style-type: none"> <li>• the area of disturbance is relatively small;</li> <li>• disturbances are located away from streams and are separated by effective vegetated buffer areas which would prevent sediment reaching streams;</li> <li>• culvert installations are temporary and are located in headwater swales and not streams;</li> <li>• upgrades and reconstruction of Primitive Road A (2100 feet), Forest Road 18591 (1300 feet), Primitive Trail A and Primitive Road B (11,400 feet) would reduce or eliminate existing erosion and sedimentation problems;</li> <li>• the specific mitigation measures proposed for this project combined with the BMPs and the INFISH standards;</li> <li>• inspection of all activities by IPNF personnel to establish compliance with mitigation measures, BMPs and INFISH standards and to identify any additional erosion control activities needed.</li> </ul>



Source of Comment	Comment	Response
US EPA <sup>19</sup>	<b>Storm water</b> How will storm water runoff generated from the new parking lot and building expansions be managed? <sup>19</sup>	The proposed parking lot would be surfaced with gravel or crushed rock, which would minimize long-term erosion. Drainage from the parking lot and building expansion area would be routed to vegetated areas to prevent runoff from reaching streams. Drainage problems in the existing parking lot near the abandoned railroad grade would be corrected by re-contouring part of the parking lot and directing drainage to vegetated swales. (See <b>FEIS Chapter 2, Section 2.5.5 –Features Common to the Action Alternatives, Parking</b> ).
Kootenai Environmental Alliance <sup>3</sup>	<b>Water Quantity</b> The FEIS needs to analyze if clear-cuts related to each alternative would contribute to peak flows from rain-on-snow events that would result in flows in the South Fork exceeding 375 cfs. <sup>3</sup>	As stated in the DEIS and FEIS ( <b>Chapter 3 - Water Resources</b> ), one year of stream flow monitoring on the South Fork of the Coeur d'Alene River upstream of Mullan, Idaho showed that flows ranged seasonally from about 15 cfs to approximately 375 cfs. The maximum timber removal on the north side of Runt Mountain under the action alternatives would be 60 acres. As stated in the DEIS and FEIS ( <b>Chapter 4 - Water Resources</b> ), the affected acreage would represent less than one-half of one percent of the South Fork cumulative effects drainage area. No detectable change in water yield is expected for any type of rain or rain-on-snow event due to either action alternative since less than one-half of one percent of these drainage areas would be impacted.
Department of the Army (COE) <sup>6</sup>	<b>Wetlands and Waters of the US</b> DA [Department of the Army, Corps of Engineers] authorization will be required for installation of culvert(s)...it also appears that the proposed work could be authorized by our Nationwide Permit process...Please submit an application upon completion of the FEIS. <sup>6</sup>	The permits required for the project are listed in the <b>FEIS, Section 2.7 –Permits Required</b> . LPSRA and the IPNF are aware of COE permit application requirements.

Source of Comment	Comment	Response
The Lands Council <sup>2</sup>	<p><b>Wetlands and Waters of the US, continued...</b></p> <p>The proposed new chair lift lower staging area is very close (400 feet) to the upper reaches of the St. Regis River and road 18591 is within the RHCA of the St. Regis River. ...In addition, this road crosses a wetland...The 12-acre wetland on the south side of the mountain (DEIS 4-21) will be permanently altered and degraded, which is unacceptable and likely illegal under federal law.<sup>2</sup></p>	<p>As stated in the DEIS and FEIS (<b>Chapter 4 - Fisheries</b>), the St. Regis River is about 400 feet from the lower lift terminal on the south side of the ski area. Therefore, this portion of the proposed action is outside the RHCA (riparian habitat conservation area) for the St. Regis River. Forest Road 18591 is within the St. Regis River RHCA for a small portion of its length, but the road does not cross a wetland. Erosion from snowmelt and rainstorms has been occurring along Forest Road 18591. This road would be improved with grading and water bars to minimize erosion and sedimentation. Although 1300 feet of road would be improved, less than 250 feet of this length is within the St. Regis River RHCA. The section of road within the RHCA is west (upstream) from Snowmobile Reroute #2. Road improvements would follow INFISH guidelines and would not impair attainment of riparian management objectives. In fact, improvements in road drainage may enhance attainment of riparian management objectives.</p> <p>As stated in the DEIS and FEIS (<b>Chapter 3 – Soil and Slope Stability</b>), a significant erosion problem currently exists where Primitive Road A crosses a wetland on the south side of Runt Mountain. At this location, water draining from the wetland area has been captured by the primitive road and has caused gully erosion up to 12 inches deep. All action alternatives propose re-grading this location prior to lift and run construction to eliminate the erosion problem. After lift construction, the road would be reconstructed into a trail for hiking, biking, and cross-country skiing.</p> <p>The action alternatives would trim vegetation and remove trees for a new ski run within a wetland on the south side of Runt Mountain. The affected area within the wetland would be approximately 8 acres for Alternative B and 0.7 acres for Alternatives C and D. The wetland would not be dredged or filled for the new run. Given the lack of flow between the wetland and the river, the relatively flat topography down-gradient from the wetland, the implementation of BMPs, and the permeable soils, it is doubtful that any impact to water quality or fisheries would occur as a result of the wetland disturbance.</p>
Kootenai Environmental Alliance <sup>3</sup>	There is no mention whether snowmobile use has contributed to the erosion along wetland and riparian areas (pages 3-19 and 3-20)....The FEIS needs to indicate if snowmobile use has impacted any of the wetlands within the cumulative effects area...and if snowmobile use with each alternative would impact wetlands in the analysis area. <sup>3</sup>	The erosion problems on Primitive Road A are due to lack of adequate drainage structures, especially where the road crosses a wetland. Snowmobile use is not considered a contributor to the erosion problem. Primitive Road A would be reconstructed into a cross-country ski and hiking trail with adequate drainage structures under the action alternatives. Snowmobile use would no longer be allowed on Primitive Road A under the action alternatives.
US EPA <sup>19</sup>	While the direct impacts to streams, wetlands, and riparian areas appear to be small... the DEIS does not provide a map of the location of the impacts, or propose any mitigation for the impacts. <sup>19</sup>	<p>The streams and wetlands within the area of direct and indirect effect are shown on <b>FEIS Figures 2-1, 2-2 and 2-3</b>. Streams in indirect and cumulative effect areas are shown in <b>FEIS Figure 1-1</b>. As stated in the DEIS and FEIS (<b>Chapter 4 - Water Resources</b>), impacts to water quality in St. Regis River and South Fork Coeur d'Alene Rivers are not expected as a result of any of the LPSRA action alternatives because of the small areas affected, low number of culvert installations, remediation of erosion problems on existing roads, planned mitigation measures, and implementation of BMPs. There may be a very small, temporary increase in sediment yield during culvert installation, but otherwise water quality is not expected to be affected by the action alternatives. Culvert locations are shown in <b>Figures 2-1, 2-2 and 2-3</b>.</p> <p>Mitigation measures to prevent impacts to water quality and fisheries are itemized in the <b>FEIS, Sections 2.5.6 and 2.5.7 Mitigation and Monitoring Measures ; and Chapter 4 - Water Resources and Fisheries</b>.</p>

Source of Comment	Comment	Response
The Lands Council <sup>2</sup>	<b>Water Rights</b> The DEIS seems to indicate there are conflicting water rights claims...but does not reconcile them. <sup>2</sup>	Drinking water and fire suppression water for the LPSRA is supplied from a developed spring located across Interstate 90 to the east of the ski area. The spring is located in Montana, but the place of use is in Idaho. Both the Lolo National Forest and the Idaho Panhandle National Forest properly filed water right claims during their respective states general water right filing periods. Because both Montana and Idaho are in different phases of their respective states water right adjudication proceedings, these claims are subject to further modifications. Changes in the water right filings are also allowed under Idaho and Montana law. The text is clarified in <b>FEIS Chapters 3 and 4</b> – Water Resources.
Idaho Department of Environmental Quality <sup>5</sup>	<b>Air Quality</b> I agree that 148 acres of timber removal and prescribed fire should not result in significant air quality impacts, especially considering the burning would occur over 5 to 6 years. <sup>5</sup>	Comment noted.
Idaho Department of Environmental Quality <sup>5</sup>	Page 4-16 should also mention burn plans...EPA "Interim Air Quality Policy on Wildland and Prescribed Fires" requires burn plans to include: emission reduction actions; smoke dispersion evaluation; public notification; public exposure reduction; and air quality monitoring...	The <b>FEIS Chapter 4</b> – Air Quality, was modified to include the requested information.
Idaho Department of Environmental Quality <sup>5</sup>	Page 4-17, please use Area rather than Airsheds when referring to Class I or II Areas, to avoid confusion with the MT/ID smoke management program 25 "airsheds" and the DEQ airsheds that have recently formed in several areas of Idaho....also mention here that the Cabinet Mountain Wilderness is 35 miles northeast of the project. <sup>5</sup>	The <b>FEIS Chapter 4</b> – Air Quality, was modified to include the requested information.
Charles Sheroke <sup>21</sup>	The impacts of snowmobile emissions on cross country skiers and air quality in the Basin must be addressed. <sup>21</sup>	Impacts of snowmobile emissions have been evaluated and are presented in the <b>FEIS – Chapter 4</b> Air Quality, Snowmobile Emissions. The incremental increase in snowmobile use because of the action alternatives is not expected to increase air pollution in the Lookout Pass area to levels above the NAAQS. However, other recreation users, such as cross-country skiers, will continue to experience snowmobile exhaust for short periods after snowmobiles pass skiers on the trail, or when snowmobiles are idling in the LPSRA parking lot.
Idaho Department of Environmental Quality <sup>5</sup>	<b>PM Standards</b> "Applicable Standards", page 3-11, should contain a discussion of the PM <sub>2.5</sub> standard...In July, 1997, EPA promulgated new PM NAAQS...There is now an annual and 24-hour PM <sub>2.5</sub> NAAQS....The annual standard is 15 µg/m <sup>3</sup> and the 24-hour standard is 65 µg/m <sup>3</sup> . A recent Supreme Court decision upheld the PM <sub>2.5</sub> NAAQS...The 3 <sup>rd</sup> paragraph needs to clarify that the Idaho smoke management program is voluntary...the program now runs from March 1 through November 30...The Montana program is recognized by the EPA as "Best Available Control Technology" and permits are only required in Montana, not Idaho. <sup>5</sup>	The <b>FEIS Chapter 3</b> – Air Quality, was modified to include the requested information.
Idaho Department of Environmental Quality <sup>5</sup>	Under "Existing Conditions", page 3-11, the first sentence does not agree with the first sentence of the 2 <sup>nd</sup> paragraph under "Local Conditions" on the next page...The former states the NAAQS are met except for limited periods during the late summer or winter inversions...The later states that the area meets all NAAQS...the latter statement is true. <sup>5</sup>	The discussion is accurate for regional versus local conditions. Air quality within the existing and proposed ski area is generally considered to be good. Other areas of the IPNF near Pinehurst, Idaho are part of a non-attainment area

Source of Comment	Comment	Response
Idaho Department of Environmental Quality <sup>5</sup>	<p><b>PM Standards, continued...</b></p> <p>Under page 4-16, again, the program in Idaho is voluntary and permits are not required (see also page 4-18 and 4-19).... Since 1999, the program was expanded to include south Idaho. ..Please refer to the program as the Montana/Idaho Airshed Group (rather than Montana/North Idaho)...Best Management Practices for prescribed fire were not found in the Appendix. <sup>5</sup></p>	<p>The FEIS <b>Chapter 3</b> – Air Quality, was modified to include the requested information. To save paper and reproduction costs, BMPs were moved to the project file and are not included in the Appendix of the FEIS. The BMPs for the project were expanded to include those for prescribed fire and those for the Lolo National Forest.</p>
Idaho Fish & Game <sup>1</sup>	<p><b><u>Aquatic Life and Fisheries</u></b></p> <p>Water quality and quantity delivered from the proposed action may affect existing and potential fish-bearing streams...including the South Fork of the Coeur d'Alene River. ....Downstream fisheries are at risk, as the expansion will result in a significant amount of ground disturbance and an increased amount of impervious surface area. <sup>1</sup></p>	<p>As stated in the DEIS and FEIS (<b>Chapter 4 - Water Resources</b>), impacts to water quality in St. Regis River and South Fork Coeur d'Alene Rivers are not expected as a result of any of the LPSRA action alternatives because of the small areas affected, low number of culvert installations, remediation of erosion problems on existing roads, planned mitigation measures, and implementation of BMPs. There may be a very small, temporary increase in sediment yield during culvert installation, but otherwise water quality is not expected to be affected by the action alternatives.</p> <p>As stated in the DEIS and FEIS (<b>Chapter 4 – Fisheries</b>), the action alternatives are not expected to have an overall impact on pool frequency, water temperature, large woody debris, or the width/depth ratio of fish and non-fish bearing streams. The proposed action would improve current conditions on the existing road through the wetland by restoring natural hydrologic flow paths and reducing the risk of sediment delivery to streams from the existing road surface.</p> <p>As stated in the DEIS and FEIS (<b>Chapter 4 - Water Resources</b>), the acreage area affected by the action alternatives would represent less than one-half of one percent of the South Fork Coeur d'Alene River and St. Regis River cumulative effects drainage area. No detectable change in water yield is expected due to either action alternative because of the small area of impact.</p>
The Lands Council <sup>2</sup>	<p><b><u>Aquatic Life and Fisheries, continued...</u></b></p> <p>The project must be consistent with all recovery procedures for bull trout and Westslope cutthroat trout...Given that the St. Regis River bull trout are functioning at risk, opportunities for recovery must be better explored with this project proposal. <sup>2</sup></p>	<p>As stated in the DEIS and FEIS (<b>Chapter 4 - Fisheries</b>), although the risk of extinction for bull trout in this portion of the St Regis River is high, this project is not anticipated to pose further risks to these fish. The U.S. Forest Service does not consult with the U.S. Fish and Wildlife Service on bull trout for projects located in the South Fork of the Coeur d'Alene River because of the long history of mining, and other human impacts in this watershed. The likelihood of any management action in the basin resulting in incidental take of bull trout is low if not zero in this watershed (Idaho Panhandle National Forest, 1998).</p>
Kootenai Environmental Alliance <sup>3</sup>	<p>The DEIS does not indicate if there is a coarse bedload movement problem in the South Fork above the Lucky Friday Mine...The final EIS should indicate if there are any coarse bedload movement problems and if Westslope cutthroat trout habitat would be affected if coarse bedload movement were to occur...The FEIS should also indicate if a rain-on-snow event would cause significant coarse bedload movement. <sup>3</sup></p>	<p>The proposed project would have no affect on coarse bedload movement and Westslope cutthroat trout habitat in the South Fork of the Coeur d'Alene River, even if a rain-on-snow event should occur. There may be a very small, temporary increase in sediment yield during culvert installation, but otherwise water quality is not expected to be affected by the action alternatives. No detectable change in water quantity is likely and the water quality impacts are so small and isolated that they are unlikely to contribute detectable cumulative effects to water quality.</p>

Source of Comment	Comment	Response
Kootenai Environmental Alliance <sup>3</sup>	There is insufficient information in the DEIS regarding cumulative impacts to water quantity and the movements of metals and impacts to Westslope cutthroat trout. <sup>3</sup>	The cumulative effects analysis (see <b>DEIS and FEIS Chapter 4 – Water Resources and Fisheries</b> ) indicates that adverse impacts to water quality are not expected because of the action alternatives. The proposed project area is not located in an area with high concentrations of metals or historic mine disturbances that produce high metal concentrations in surface water (see <b>FEIS Chapter 3 – Geology</b> ). Concentrations of metals are not expected to increase downstream of the project area because of the action alternatives. Therefore, there would be no cumulative effects to water quality and Westslope cutthroat trout because of metals and the action alternatives.
US EPA <sup>19</sup>	If on-site, in kind mitigation [for aquatic habitat loss] is not feasible, there may be useful off-site opportunities....For example, there is a fish passage barrier present on the St. Regis River downstream of the proposed project at the I-90 crossing...(or another barrier on FS lands)...that could be removed or corrected. <sup>19</sup>	Aquatic habitat loss is not anticipated as a result of the proposed action. Therefore, mitigation for habitat loss will not be required for the project.
The Shoshone Sportsman's Club <sup>27</sup>	The main concern of the Shoshone Sportsman's Club is the protection of the waters of the Mullen Fish Hatchery, which the Club manages under the auspices of the Idaho Dept. of Fish and Game...It was requested that the FEIS include: <ul style="list-style-type: none"> <li>a) A calculation of how much more water would be added to runoff/peak flows;</li> <li>b) A calculation of the capacity of the freeway culverts, and compare that to predicted flows;</li> <li>c) Pending the results of a) and b) above, require energy absorbers to be installed to prevent damage to the culverts and/or the drainage below the culverts.<sup>27</sup></li> </ul>	<p>a) As stated in the DEIS and FEIS (<b>Chapter 4 - Water Resources</b>), the area affected by the action alternatives would represent less than one-half of one percent of the South Fork Coeur d'Alene River and St. Regis River cumulative effects drainage area. No detectable change in water yield is expected due to any of the action alternatives because of the small area of impact.</p> <p>b) Freeway culvert capacity was determined by highway engineers during design and construction of Interstate 90. No problems are known related to culvert capacity in this area. As stated above, timber removal is unlikely to create a detectable increase in water yield under any action alternative. Alternatives B and C would include timber removal in the Bitterroot Springs drainage above the Mullen Fish Hatchery, but these alternatives are not expected to create a detectable increase in water discharge volume downstream of Bitterroot Springs. Alternative D has less potential for impact, as it has less timber removal overall and none in the drainage above or below Bitterroot Springs.</p> <p>c) Since no detectable increases in water yield are expected and no problems are currently documented, energy absorbers are not warranted in relation to the action alternatives.</p>
The Lands Council <sup>2</sup>	<p><b><u>Vegetation, Timber, and Fire</u></b></p> <p><b>Old Growth</b> The DEIS fails to disclose that the IPNF and LNF are failing to meet Forest plan standards related to old growth on both the LNF and IPNF.<sup>2</sup> Please disclose the amounts of old growth habitat in the affected old growth management units/timber compartments, as related to Forest Plan Standards.<sup>2</sup></p>	No old growth would be affected by any action alternative since no old growth is present within the current or proposed permit boundaries ( <b>DEIS and FEIS Chapter 4 - Vegetation</b> ). Because there is no old growth in the proposed project area, old growth cumulative effects related to the rest of the IPNF and LNF were not examined in detail. The potential for future old growth to develop would be eliminated from the acres of new ski runs and other timber removal areas proposed. The remaining portions of the proposed expansion area would continue to develop into potential old growth in the absence of stand replacement disturbances.

Source of Comment	Comment	Response
Kootenai Environmental Alliance <sup>3</sup>	<b>Super Trees</b> The DEIS does not indicate how White pine super trees within the project area would be affected under Alternative B or C...or if the trees have any Old Growth characteristics... The FEIS should indicate if any of the 24 super trees would be in the vicinity of any snowmobile use under each alternative. <sup>3</sup>	Twenty-four western white pine "super trees" have been identified on the lower south slopes on Runt Mountain. Only one of these trees (#2107) is within the area affected by timber removal or other ground-disturbing activities proposed for the action alternatives. This tree and two others (#2108, #2110) are within the general area of historic snowmobile and backcountry skier use but have not been affected by these activities in the past. No effects on these trees are expected under any action alternative. During construction, super trees would be prominently marked to prevent direct or indirect impacts. The super trees and the stands they occur in do not meet current definitions of old growth forests. (see FEIS <b>Chapter 4 – Vegetation</b> ).
Paul Jameson <sup>7</sup>	<b>Tree Regeneration and Snowmobiles</b> Snowmobile tracks in the St. Regis Basin are causing many seedlings and saplings to have broken terminal leaders and/or unnecessary mechanical damage to their trunks...The advanced regeneration at high elevations is undergoing unnecessary tree mortality and damage that is unacceptable...I implore you to defer making a determination on the expansion of the ski area without addressing the need to limit and control the damaging snowmobile traffic in the backcountry. <sup>7</sup>	Damage to young trees from snowmobile traffic has not been a problem in the St. Regis Basin according to Doug Driden, Montana Fish Wildlife and Parks (personal communication, 10/1/01). Mr. Driden patrols the St. Regis Basin and monitors snowmobile use at least once per week during the winter. Mr. Driden said that the snow is usually too deep for the snowmobiles to have an effect on young trees. The small incremental increase in snowmobile use that may occur because of the action alternatives is not expected to increase damage to vegetation in the St. Regis Basin.
Kootenai Environmental Alliance <sup>3</sup>	<b>Timber Harvest:</b> The DEIS did not indicate the number of acres that had regenerated out of the 439 logged during the Snowstorm Canyon timber sale. <sup>3</sup>	The Snowstorm Daisy Timber Sale included timber harvest on 5 acres of shelterwood (Unit 10), 88 acres of group shelterwood (Units 1 and 2), and 346 acres of commercial thinning. In 1998, approximately 20 acres Unit 1, and 10 acres in Unit 2 were planted. Monitoring results certified that these stands have successfully regenerated (Truscott, 2001). Other harvested areas were thinned and did not require re-stocking. (See <b>FEIS Chapter 4 – Vegetation, Cumulative Effects</b> )
Glenn Koepke <sup>23</sup>	Utilization of timber for all possible products should be maximized and required, such as small round-wood, firewood and/or chips besides the saw-logs....resulting value-added opportunities, smaller burn spots, and less overall site impact...Chipping of waste wood for hog fuel now that energy prices are high. <sup>23</sup>	Timber harvest plans under the action alternatives are described in <b>Chapter 2, Section 2.5.5 – Features Common to the Action Alternatives, Timber Harvest</b> . The harvest plan states that under current market conditions, commercial timber includes trees at least 7-inches or larger in diameter. If possible, trees 3- to 6-inch diameter would be sold as well, perhaps to a fencing purchaser.  Wood waste would be chipped and used for erosion control, if needed on steeper slopes. In other areas, wood waste would be piled and burned according to Forest Service standards and air quality controls (see <b>Chapter 4 – Air Quality</b> ).
Glenn Koepke <sup>23</sup>	Stands adjoining the new clearings should be sanitized for recent mortality, disease-and beetle-infested trees, and blow-downs within lateral yarding limitations to increase utilization, reduce fuels, and improve stand hygiene. This would also remove more potential hazard trees. <sup>23</sup>	The stands adjoining new clearings for ski runs are in good condition and are not anticipated to need special treatment. Blow-down and decaying trees in areas away from ski runs would not be removed, as they provide wildlife habit.
Glenn Koepke <sup>23</sup>	Landings...need to be large enough for safe and efficient processing...especially for multiple products...I would suggest hot-logging to remove productions promptly... along with chipping and concurrent purchaser burning in-season... to minimize landing sizes and burn spots...If the economics for low-value wood product removal is unfavorable, the materials could be chipped on-site for erosion control mulch. <sup>23</sup>	Timber harvest, including landings, would be designed and implemented in accordance with BMPs and guidance from IPNF forest specialists. Slash burning would be conducted in accordance with a burn plan and directives from the Montana/Idaho Airshed Group. Wood waste would be chipped and used for erosion control where necessary. (See <b>Chapter 2, Section 2.5.5 – Features Common to the Action Alternatives, Timber Harvest</b> )

Source of Comment	Comment	Response
The Lands Council <sup>2</sup>	<b>Fire Ecology</b> The EIS must analyze the impacts of fire suppression in the developed area on fire ecology. <sup>2</sup>	As stated in the DEIS and FEIS ( <b>Chapter 4 – Vegetation</b> ), fuels would be dramatically reduced on the proposed ski runs and lift lines under the action alternatives. The additional ski runs would provide canopy breaks and potential fire breaks, as well as improved access for fire fighting. These factors may result in less frequent fires or more control over fire ecology due to less fuel, more firebreaks and better access. Fuel loadings would continue to increase on the remainder of the LPSRA as lodgepole pine and other species reach full maturity and die.
The Lands Council <sup>2</sup>	<b>Weeds</b> The DEIS fails to disclose the significance of noxious weeds to native plant communities and wildlife habitat...The effectiveness of weed treatments must be considered, along with costs and environmental impacts of treatments. <sup>2</sup>	As stated in the DEIS and FEIS ( <b>Chapter 4 – Vegetation</b> ), activities that disturb soil, reduce canopy coverage and result in more traffic would increase the potential for weed spread. Forest standards require integrated weed management, which would be coordinated with LPSRA to provide adequate weed control. Weed control efforts by the ski area would be continued and would emphasize the elimination of noxious weeds including knapweed, St. Johnswort and Canada thistle from roadsides, parking lots and ski trails. If not controlled, these weeds replace native plants and reduce vegetation diversity which may have negative effects on wildlife as well as native plant communities. A variety of cultural, mechanical, chemical and biological weed control methods are available and have proven effective in Montana and Idaho. Both national forests have ongoing integrated pest management programs (IPM) for addressing weed issues and potential impacts from their control. Implementation of the weed management programs on both forests is expected to limit weed spread as a result of the action alternatives and prevent adverse effects on native plant communities and wildlife habitat.
The Lands Council <sup>2</sup>	<b>Wildlife</b> We incorporate the Ecology Center's January 25, 2000 and March 23, 2000 letters letter to the IPNF and Lolo NF, as comments on the DEIS. <sup>2</sup>	Federal law requires that public comments on EIS documents include "specific facts or comments along with supporting reasons that the person believes the Responsible Official should consider in reaching a decision" (36 CFR 215.6(b)). Many of the concerns raised in the two letters from the Ecology Center are more appropriately addressed at the Forest Plan scale or at even a more broad scale (see letter to Jeff Juel from Forest Supervisor David Wright dated February 11, 2000). Public comments should respond as specifically as possible to project level proposals.
The Lands Council <sup>2</sup>	Trails should be gladed rather than clear-cut to maximize habitat connectivity. <sup>2</sup>	No gladed or "tree skiing" runs are proposed as part of the action alternatives. All runs would be groomed, which is not possible with gladed runs.
The Lands Council <sup>2</sup>	<b>Snags and Downed Woody Debris</b> The IPNF and LNF failed to demonstrate they are maintaining sufficient habitat for species relying upon snags, hollow trees, and downed woody debris, consistent with management standards based upon Bull and others (1997).... Please disclose the amounts of snag, cavity nesting, and downed woody debris habitat in the affected timber compartments, as relating to Forest Plan Objectives, Standards, and Guidelines....Cleared vegetation should be left where cut and/or placed within the inter-trail forested islands. <sup>2</sup>	As stated in the <b>DEIS and FEIS, Chapter 4- Wildlife</b> , the areas proposed for disturbance have a scarcity of large amounts of woody debris and a scarcity of denning habitat. The timber in the proposed expansion area is healthy and relatively young (post-1910 fire). Removal of timber for ski runs would have a negligible effect on potential denning habitat.

Source of Comment	Comment	Response
The Lands Council <sup>2</sup>	<b>MIS and Sensitive Species</b> IPNF and LNF have failed to design and implement the Conservation Strategies for MIS and Sensitive species whose viability is of concern....Such strategies must, for each species, consider the role of the habitat to maintain viable populations, core populations areas, movement corridors and connectivity, population dynamics, and long-term population trends based on monitoring and evaluation in the field. <sup>2</sup>	The DEIS addresses issues and concerns regarding MIS and Sensitive Species, such as habitat condition, population viability and trends, and movement corridors (see <b>DEIS and FEIS Chapter 4 – Wildlife</b> ). The IPNF and LNF have conservation strategies for lynx (national strategy), and the state of Idaho Dept of Fish and Game has completed conservation strategies for the following species: Harlequin duck, forest carnivores, White-headed woodpecker, Townsends big-eared bat, Spotted frog, & Coeur d'Alene salamander.
The Lands Council <sup>2</sup>	Since the project would remove mature or late successional forest habitat that could provide Sensitive and Management Indicator Species, the FS must undertake a more extensive detailed viability analysis to demonstrate it has maintained viable populations of these species. <sup>2</sup>	Predicted impacts to Management Indicator Species (pileated woodpeckers, American martin, elk and mule deer) are discussed in <b>DEIS and FEIS Chapter 4 – Wildlife</b> . The proposed action would not substantially alter habitat that may be used by pileated woodpeckers or American martin; consequently, the distribution and population numbers of this species in the proposed expansion area would not appreciably change with the action alternatives.  Conversion of forest habitat to ski runs would reduce summer/fall hiding cover for elk and mule deer, rendering them more vulnerable to mortality during the hunting season. Cleared ski runs would provide relatively easy pedestrian access for hunters and provide long unimpeded, views for shooting. Also, grass and other herbaceous forage would likely attract elk and deer to openings created by ski runs, increasing their vulnerability to hunting mortality. The action alternatives would increase hunter access and increase the risk of hunter-caused mortality to elk and deer. This would be a localized minor impact because hunters readily access the study area under existing conditions because of the high density of roads and trails. The loss in hiding and thermal cover and increases in forage would have minor effects on the local and regional populations of elk and mule deer.
The Lands Council <sup>2</sup>	<b>Lynx and other Carnivores</b> The area contains potential lynx habitat... lodgepole pine ...that should be analyzed for future impacts on lynx denning, foraging and travel habitat...Impacts (need to be evaluated) for travel corridors, habitat fragmentation, and increased predator competition by snow compaction and coyote proliferation <sup>2</sup>	The DEIS and FEIS ( <b>Chapter 4 – Wildlife</b> ), discuss the impacts to foraging habitat for lynx, denning habitat for lynx, diurnal security habitat for lynx, connectivity habitat for lynx, and human access and lynx.
The Lands Council <sup>2</sup>	IPNF has designated the Lookout Pass area as a primary conservation area for forest carnivores (lynx, fisher, and wolverine)...Yet the DEIS does not adequately demonstrate consistency with the Lynx Conservation Assessment and Strategy (LCAS), the programmatic Biological Evaluation, and programmatic Biological Opinion, and the Conservation Agreement between the USFS and USFWS...The FS must amend its Forest Plans to fully adopt the LCAS...The DEIS fails to demonstrate consistency with the applicable forest-wide and project-specific standards and guidelines contained in the LCAS regarding recreational activities. <sup>2</sup>	The DEIS and FEIS address issues and concerns in the LCAS, the programmatic Biological Evaluation, programmatic Biological Opinion, and Conservation agreement. Project-specific guidelines contained in the LCAS are addressed in the EIS documents regarding recreational activities, diurnal security habitat, snow compaction relationships among other predators and lynx, habitat connectivity, modification of key habitat components, displacement as a result of human activity, mortality factors, and the lynx prey base.
The Lands Council <sup>2</sup>	<b>Amphibians</b> It is unclear if survey protocol was followed for several amphibian species, such as the Boreal toad and Northern leopard frog or the Coeur d'Alene salamander...The impacts at Bitterroot Springs should be fully analyzed. <sup>2</sup>	Pedestrian surveys through suitable habitats were conducted in the areas directly affected by the action alternatives. If amphibians were noted, they were recorded. Potential impacts to TES amphibian species are discussed in <b>Chapter 4 of the DEIS and FEIS</b> . Portions of the Bitterroot Springs drainage would be affected by Alternatives B and C, but would not be affected by Alternatives A or D. Alternative B may adversely affect individual amphibians at Bitterroot Springs but would not contribute to a trend towards federal listing or cause loss of viability to any of the TES populations or species.



Source of Comment	Comment	Response
The Lands Council <sup>2</sup>	<b>Wolves</b> Wolves are not adequately discussed...given the location at the northernmost end of the experimental wolf recovery area, and the traffic and other expansion related developments. <sup>2</sup>	As discussed in the <b>DEIS and FEIS Chapters 3 and 4</b> , the proposed expansion area does not include optimum wolf habitat. The area accumulates deep snow that displaces big game, the primary prey of wolves, to lower elevations. Consequently, wolves are not addressed in greater detail in this EIS. None of the action alternatives would affect wolf denning or hunting areas or rendezvous sites. No important prey concentrations (i.e., wintering big game) occur on or near the project area. There would be no impacts to the prey base locally or regionally. The action alternatives would have no effect on gray wolves.
The Lands Council <sup>2</sup>	<b>Recreation</b>  <b>Backcountry skiing and snowmobiling conflicts</b> The staging area (on the south side of Runt Mountain) will be on or very near the trail that is used extensively by cross-country skiers going up into the St. Regis Basin area....Some of the new south face ski runs would appear to be located in areas that offer liberal opportunity to ski out of bounds of the marked ski run and thus mix high speed downhill skiing with the much slower cross country skiers....Currently, the lack of an easy return to the ski lodge limits downhill skiers from going down the back side of Runt Mountain... Under this proposal, the new chair lift would remove this difficulty and the proposed expansion would be a significant impact on telemark and cross-country skiing in the St. Regis Basin....The expansion should not be done at the expense of existing recreationists...The St. Regis Basin is a premier cross country ski area and this expansion would be the end of that quality experience. <sup>2</sup>	As stated in the DEIS and FEIS ( <b>Chapter 4 – Recreation</b> ), the cross-country and snowmobile trail on the south side of Runt Mountain would be re-routed around the base of the downhill ski lift (see Reroute #2 in <b>Figures 2-1, 2-2, and 2-3</b> ). The south side of Runt Mountain currently used by backcountry skiers would be developed into commercial alpine ski runs, eliminating the solitude once afforded by this backcountry experience. About 2800 feet of cross-country trail (Primitive Trail A) would be eliminated by ski runs on the southwest side of Runt Mountain for Alternative B, and about 700 feet of the trail would be eliminated for Alternatives C and D. Primitive Roads A and B and Primitive Trail A would be closed to snowmobiles but open to cross-country and backcountry skiers.  There would be a possible increase in use of St. Regis Basin and Idaho/Montana high country by the following: <ul style="list-style-type: none"> <li>those using lodging and the visitor center at Lookout Pass;</li> <li>snowmobiles accessing the high-country from St. Regis Pass under Alternative C; and</li> <li>backcountry skiers with a lift-assisted return-trip to the Lookout Pass base area.</li> </ul> The increase in backcountry use may in turn cause: <ul style="list-style-type: none"> <li>increases in snowmobile/cross-country skier conflicts;</li> <li>decreases in cross-country skiing opportunities because skiers would be discouraged from using the area by the increases in snowmobile traffic and noise;</li> <li>increases in avalanche incidents and rescue efforts; and</li> <li>use restrictions in the St. Regis Basin because of increased year-round recreation,</li> </ul> These impacts are discussed in the <b>FEIS Chapter 4 - Recreation</b> . Alternative D in the FEIS was developed to address concerns regarding rerouting the snowmobile trail over St. Regis Pass.
Randy LaBeff <sup>9</sup>	The snowmobiles will further encroach onto the backcountry ski areas...Backcountry skiing and snowmobiling uses do not mix very well...the snowmobile traffic gets worse every year in the St. Regis Basin...the ski hill expansion will only make this conflict worse. <sup>9</sup>	See response above and <b>FEIS Chapter 4 – Recreation</b> .
Steve and Sharon Reynolds <sup>10</sup>	We further urge you to delineate land for cross-country skiing only, separated from land used by snowmobilers...This should include areas around Stevens Peak, including the St. Regis lakes, Stevens Lakes, and at least one other drainage on the other side, preferably the Boulder Creek Basin....While we do not want to keep the alpine concession from expanding, we feel it should be done responsibly with backcountry and cross country users interests in mind. <sup>10</sup>	As discussed in the DEIS and FEIS ( <b>Chapter 4 – Recreation</b> ), areas within the Special Use Permit boundary for the ski area would be closed to snowmobile use, except for the Lookout Pass parking lot and adjacent railroad grade. Primitive Roads A and B, and Primitive Trail A would be closed to snowmobiles but open to cross-country and backcountry skiers. A small incremental increase in snowmobile use may occur in the Stevens Peak, the St. Regis Lakes, Stevens Lakes and the Boulder Basin areas because of the action alternatives. However, increased snowmobile use may occur with or without the proposed expansion. Existing skier/snowmobile use conflicts, safety problems, and potential closures outside the ski permit boundary are beyond the scope of this NEPA process.

Source of Comment	Comment	Response
John Latta <sup>18</sup>	<b>Backcountry skiing and snowmobiling conflicts, continued...</b> The St. Regis Basin, once a backcountry skiing, boarding, and snowshoeing paradise, is now overrun by hordes of snowmobilers every weekend day...With the new high-powered machines anyone can access almost any area regardless of the now conditions...Snowmobiles have become so overwhelming in the St. Regis basin that it is almost impossible to experience the solitude that once was easy to find there.... We are asking that the FS ban the use of recreational snowmobiling in the Boulder Creek drainage, Willow Creek drainage, and Stevens Peak alpine area...before the desecration that has occurred in the St. Regis basin can take place in Boulder Creek...A good start would be to put a gate, seasonally locked...on the narrow jeep trail into Boulder Creek Basin. <sup>18</sup>	See Recreation responses above and <b>FEIS Chapter 4-</b> Recreation.
Nicki Moffatt <sup>11</sup>	Please don't destroy the backcountry skiing for us heart powered outdoor enthusiasts...Still with plan A and leave it be! <sup>11</sup>	See Recreation responses above and <b>FEIS Chapter 4-</b> Recreation.
Carla Gay <sup>14</sup>	Please do no expand the ski area, as it will adversely effect the other recreational opportunities in the area...As a lifelong downhill and cross-country skier...I believe the negative environmental impacts of downhill ski areas far outweigh the need for more vertical feet in the area. <sup>14</sup>	See Recreation responses above and <b>FEIS Chapter 4-</b> Recreation.
Brian Gay <sup>15</sup>	Expanding the Lookout Pass Ski Area will reroute snowmobiles into prime cross country ski areas...Please consider Alternative A...there is little enough area for cross- or back-country skiing available...as it is shoving snowmobiles and cross country skiers into the exact same area has always proven socially incendiary and recreationally unsatisfactory. <sup>15</sup>	See Recreation responses above and <b>FEIS Chapter 4-</b> Recreation.
Charles Sheroke <sup>21</sup>	Cross country skiing was not given the same consideration [as downhill skiing and snowmobiling]...Shared use of both trails and the St. Regis Basin area does not address the inherent conflicts between snowmobiling and cross country skiing...The snowmobiler shares... its noise, noxious emissions, and serious safety hazards...Mitigation is non-existent and unobtainable...The only equitable proposal would be to prohibit snowmobiling in the St. Regis Basin or alternating days of usage between cross country skiing and snowmobiling... It is important to note that the vast majority of the area is open exclusively to snowmobiling... The impacts of snowmobile noise and emissions on cross country skiers must be addressed. <sup>21</sup>	See Recreation responses above. Also note that the impacts of snowmobile emissions are discussed in <b>Chapter 4 – Air Quality</b> . . The incremental increase in snowmobile use because of the action alternatives is not expected to increase air pollution in the Lookout Pass area to levels above the NAAQS. However, other recreation users, such as cross-country skiers, will continue to experience snowmobile exhaust for short periods after snowmobiles pass skiers on the trail, or when snowmobiles are idling in the LPSRA parking lot.
Charles Sheroke <sup>21</sup>	[Analyze] the potential safety impacts of snowmobiles and cross country skiers utilizing the same areas within the Basin, particularly during periods of limited visibility. <sup>21</sup>	See Recreation responses above and <b>FEIS Chapter 4-</b> Recreation.
The Lands Council <sup>2</sup>	On numerous occasions...I have encountered snowmobiles on the single-use designated cross country ski trails...I have also had close encounters with snowmobiles while skiing the steep side slopes in the basin...Cross country skiers forced to share areas with snowmobilers are extremely vulnerable to the whims of the antagonistic snowmobilers. <sup>21</sup>	As stated in the DEIS and FEIS ( <b>Chapter 2</b> ), the action alternatives would include appropriate signing and speed limits for shared use and single-use trails within the vicinity of the ski area.

Source of Comment	Comment	Response
The Shoshone Sportsman's Club <sup>27</sup>	<b>St. Regis Pass Reroute</b> If the snowmobile trail is moved further towards the basin as proposed in the Lookout Ski Area expansion, the potential for increased snowmobile use in that area needs to be addressed under cumulative effects. <sup>24</sup>	See the Recreation responses above regarding user conflicts and the predicted increase in use of the St. Regis Basin and Montana/Idaho backcountry by snowmobiles. Impacts from Snowmobile Reroute #1 in Alternative C are clarified in FEIS <b>Chapter 4 - Recreation</b> . Alternative D in the FEIS was developed to address concerns regarding rerouting the snowmobile trail over St. Regis Pass.
John Latta <sup>18</sup>	The great increase in snowmobile traffic over St. Regis Pass would adversely affect the quality of the backcountry skiing on the ridgeline that forms the divide between the St. Regis Lake and Stevens Lake basins and extends southwestward from the ski area toward Stevens Peak...The St. Regis Lake/Stevens Lake divide has been a favorite of many backcountry skiers for years...The divide is often accessed from the ski area and provides access to terrain that is safe to ski, regardless of avalanche conditions...From the divide there are excellent views of Stevens Peak, St. Regis and Stevens Lake basins, as well as the surrounding mountain ranges of Washington, Idaho, and Montana...Personally, I have been taking ski groups to the divide for at least 10 years. <sup>18</sup>	See the Recreation responses above regarding user conflicts and the predicted increase in use of the St. Regis Basin and Montana/Idaho backcountry by snowmobiles. Impacts from Snowmobile Reroute #1 in Alternative C are clarified in FEIS <b>Chapter 4 - Recreation</b> . Alternative D in the FEIS was developed to address concerns regarding rerouting the snowmobile trail over St. Regis Pass.
Steve and Sharon Reynolds <sup>10</sup>	We urge you to not allow snowmobiles to be rerouted over St. Regis Pass, as I have watched over the past 3 decades less and less terrain available for use by cross-country skiers—without being encumbered by snowmobilers... <sup>10</sup>	See the Recreation responses above regarding user conflicts and the predicted increase in use of the St. Regis Basin and Montana/Idaho backcountry by snowmobiles. Impacts from Snowmobile Reroute #1 in Alternative C are clarified in <b>FEIS Chapter 4 - Recreation</b> . Alternative D in the FEIS was developed to address concerns regarding rerouting the snowmobile trail over St. Regis Pass.
Bob Kirkpatrick <sup>13</sup>	The cross country and backcountry skiing experience has been considerably diminished due to the exponential growth in snowmobile use over that last 5-10 years, as they tend to make the areas they travel unskiable, and some have very limited noise suppression, causing them to be heard for miles...My concern is that the experience will be further diminished by the ski area expansion, both by the loss of cross country trails in the expansion areas, and by re-routing snowmobiles onto additional areas where they don't tend to go now...Please get commitments from the Lookout Pass ski area owners to ensure continued access to current Nordic trails...Postpone any decisions until concerned entities can forge workable details and compromises. <sup>13</sup>	See the Recreation responses above regarding user conflicts and the predicted increase in use of the St. Regis Basin and Montana/Idaho backcountry by snowmobiles. Impacts from Snowmobile Reroute #1 in Alternative C are clarified in <b>FEIS Chapter 4 - Recreation</b> . Alternative D in the FEIS was developed to address concerns regarding rerouting the snowmobile trail over St. Regis Pass.

Source of Comment	Comment	Response
Cris Currie <sup>20</sup>	<p><b>St. Regis Pass Reroute, continued...</b></p> <p>The proposed expansion...alternatives which route snowmobile traffic over St. Regis Pass...will greatly impact an ideal area for Nordic skiing and...neither Alternative B or C should be approved until this problem is resolved...Skiers and snowmobilers need to be separated as widely as possible...They are completely incompatible ...and must not "share" the same trails...Skiers need places to go which are fairly close to parking areas and roads and the St. Regis Pass and basin has been a ski haven for many years, despite snowmobilers ..that trash the snow for skiing...Snowmobilers should be directed to other areas and basins which are more suitable for their abilities to cover very long distances in a day...The joint use of the St. Regis Basin has never been satisfactory, and these alternatives will only make it much worse...the basin area should be reserved for skiing and snowmobiles should be directed somewhere else, even if a new trail has to be built for them.<sup>20</sup></p>	See the Recreation responses above regarding user conflicts and the predicted increase in use of the St. Regis Basin and Montana/Idaho backcountry by snowmobiles. Impacts from Snowmobile Reroute #1 in Alternative C are clarified in FEIS <b>Chapter 4 - Recreation</b> . Alternative D in the FEIS was developed to address concerns regarding rerouting the snowmobile trail over St. Regis Pass.
Evelyn Wilhelmson <sup>12</sup>	Deny the request for expansion until the issues involving where snowmobile traffic will be located are resolved...both the snowmobilers and the skiers have concerns about the location of new snowmobile routes. <sup>12</sup>	See the Recreation responses above regarding user conflicts and the predicted increase in use of the St. Regis Basin and Montana/Idaho backcountry by snowmobiles. Impacts from Snowmobile Reroute #1 in Alternative C are clarified in FEIS <b>Chapter 4 - Recreation</b> . Alternative D in the FEIS was developed to address concerns regarding rerouting the snowmobile trail over St. Regis Pass.
Mark Sverdsten <sup>22</sup>	The [proposed snowmobile trail over St. Regis Pass] on both sides is too steep to be good family trails, and both sides would be difficult to groom...the Idaho side would require extensive widening to accommodate our groomer, which is 14 feet wide...culverts would have to be installed—at least one on the Idaho side and two on the Basin trail. <sup>22</sup>	See the Recreation responses above regarding user conflicts and the predicted increase in use of the St. Regis Basin and Montana/Idaho backcountry by snowmobiles. Impacts from Snowmobile Reroute #1 in Alternative C are clarified in FEIS <b>Chapter 4 - Recreation</b> . Alternative D in the FEIS was developed to address concerns regarding rerouting the snowmobile trail over St. Regis Pass.
Paul Jameson <sup>7</sup>	<p><b>Noise Impacts</b></p> <p>Any expanded use of snowmobile trails lessens the areas available without the sound pollution these machines make.<sup>7</sup></p>	This impact is noted in the FEIS ( <b>Chapter 4 – Recreation</b> )
IPNF/LPSRA/ Snowmobile club meeting <sup>24</sup>	<p><b>Snowmobile Count</b></p> <p>A count of snowmobile use is needed ...<sup>27</sup> ..see Doug Driden, Montana Fish, Wildlife &amp; Parks for a count of snowmobilers using routes in the area.<sup>24</sup></p>	A count of snowmobile use is provided in the FEIS ( <b>Chapter 3 – Recreation</b> ). Approximately 100 snowmobiles per weekend day traverse or start from Lookout Pass and travel along the groomed snowmobile trail on FS 4208 and 3026 (Doug Driden, MDFWP, personal communication, 9/27/01). A portion of these sleds also access the St. Regis Pass area and Montana/Idaho backcountry.
The Lands Council <sup>2</sup>	<p><b>Summer and Fall Use</b></p> <p>We are concerned that an increase in summertime recreation use within the special use permit boundary will occur and has not been addressed in the DEIS.<sup>2</sup></p>	The DEIS and FEIS (see <b>Chapter 4 – Recreation</b> ), disclose that the added facilities of the action alternatives (visitor center, overnight accommodations, and RV parking area) would encourage additional summer and winter visitation to the region, including cross-country and backcountry skiers, snowmobilers, hikers, hunters, wheeled motor vehicle users, wildlife watchers, and mountain bikers. The increase in summer use may, in turn, cause an increase in traffic in the backcountry, conflicts between motorized and non-motorized users, and additional wear on backcountry trails and campsites.

Source of Comment	Comment	Response
Shoshone Sportsman's Club <sup>27</sup>	<b>Summer and Fall Use, continued...</b> Will the public not be allowed on the new runs/expanded permitted ski area for hunting and huckleberry picking as the public is presently prevented on the existing runs? <sup>27</sup>	The general public is allowed and will continue to be allowed to pick huckleberries and hike in and around the ski area. Hunting activities will be subject to all Federal and State regulations applicable to the discharge of firearms or any other implement capable of taking human life, causing injury, or damaging property in proximity to developed recreation sites, buildings, or occupied areas [36 CFR 261.10 (d)].
The Lands Council <sup>2</sup>	<b><u>Transportation and Access</u></b>  A significant increase in vehicle traffic on the I-90 Lookout Pass is a problem...during the worst time of the year; through the wintertime when skiing is at its peak...For example, traffic from Stevens Pass Ski Area, where Highway 2 crosses the Cascades, is a good example of severe congestion....The DEIS fails to disclose the impacts of greater traffic on the I-90 or local travel ways...We are concerned that Lookout Pass could very easily be rendered into a terrible traffic mess with very little increase in traffic....It is a major east-west travel corridor, is narrow, steep, and twisting, and accumulates significant amounts of snow. <sup>2</sup>	As stated in the FEIS and DEIS ( <b>Chapter 4 – Land Use and Access</b> ), traffic over Interstate 90 as a result of the proposed action would increase during the winter by a very small amount (about 0.8%). Summer use is expected to bring about 75 additional cars per day along Interstate 90 in 8 years, an increase of about 1.4%. Construction of the proposed action is expected to include less than 36 cars per day, or a 0.6 percent increase in traffic over Interstate 90. The increase in traffic because of the proposed action is not expected to affect traffic safety on Interstate 90, or the ability of law enforcement and emergency vehicles to manage traffic and traffic accidents on Interstate 90. Increased law enforcement and emergency facilities would not be needed because of the proposed action.
The Lands Council <sup>2</sup>	North Idaho does not have the facilities, such as Highway patrolmen, emergency vehicles and staff, etc. to deal with (traffic) problems...The Idaho state resident taxpayer will surely be asked to fund increased infrastructure to support a private enterprise skiing operation <sup>2</sup>	See response above.
The Lands Council <sup>2</sup>	<b><u>Socio-economics</u></b>  The cost of skiing will increase substantially as the area takes on debt for the expansion—this is never acknowledged in the DEIS. <sup>2</sup> ...There is no basis for the statement that the expansion will result in LPSRA maintaining “a family atmosphere and low lift ticket prices”...Increased infrastructure and a capital-intensive operation will be tempted raise prices of all goods and services. <sup>2</sup>	As stated in the FEIS ( <b>Section 1.2.3</b> ), a goal of the ski area is to maintain affordable skiing opportunities and the Free Ski School Program. By purchasing used lifts, the ski area is recycling materials. Equipment acquisition costs would be far less than new lifts and power costs would be minimized as recycled lifts tend to utilize smaller electric motors, which require less electrical power. LPSRA anticipates that the increase in terrain, and more variety of terrain, will attract additional skier visits that in turn will increase gross revenues without an increase in lift ticket prices. Price adjustments in lift tickets are more influenced by such things as power rate hikes, and increases in wages, benefits, and insurance premiums, rather than development costs that can be amortized and depreciated.
The Lands Council <sup>2</sup>	The existing use of trails by cross country skiers and hikers would be impacted if the expansion plans proceed—the economic and social impacts must be analyzed. <sup>2</sup>	The FEIS <b>Chapter 4 – Socioeconomics</b> , notes that the action alternatives could decrease the attractiveness of the area for backcountry skiers and hikers, as the north and south sides of Runt Mountain would be removed from a primitive to a developed recreation experience. Alternative C may increase snowmobile use in the St. Regis Basin and state line area, possibly discouraging some backcountry skiers from using the area. The increase in downhill ski use, overnight visitation and resulting expenditures is expected to be much greater than the decrease in backcountry visitation and resulting expenditures in the local economy.
The Lands Council <sup>2</sup>	The expansion will increase LPSRA's vulnerability to economic variables and pressures coming from beyond the local area... A concern is that the area would have to raise prices, and could go bankrupt if snow is lacking. <sup>2</sup>	The ski area has been in existence for 60 years and has weathered many different economic trends and climatic cycles. Lookout has some of the best snow conditions of any regional ski area, even during drought years (see <b>FEIS Section 1.2.3</b> ). The ski area is expected to continue to be viable under the action alternatives.

Source of Comment	Comment	Response
Lookout Pass Free Ski School <sup>16</sup>	<p><b>Positive Economic Variables</b></p> <p>In order for the ski area to remain competitive and continue to be profitable, it is vital that the expansion be approved...Our local economy is extremely depressed and desperately needs to diversify to supplement our continuing reduction of natural resource based industries....The Lookout Pass Associate's business concept will serve as a catalyst to bring new employment opportunities to the Silver Valley and western Montana and encourage other investments in our area.<sup>16</sup></p>	<p>The predicted economic effects of the proposed action and need for the proposed action are presented in the DEIS (<b>Chapter 1 – Purpose and Need, and Chapter 4 – Socioeconomics</b>).</p>
Idaho Ski Club <sup>17</sup>	<p><b>Positive Economic Variables, continued...</b></p> <p>The expansion is necessary for Lookout to remain competitive in the market, attract new skiers, and continue in operation...A condition of our sale of the ski area was that the new owner attempt to expand the ski hill....the expansion would also provide additional employment opportunities in our economically depressed area.... Lookout is a wonderful, affordable family ski hill, which is an important part of our local economy.<sup>17</sup></p>	<p>See response above.</p>
The Lands Council <sup>2</sup>	<p><b>Subdivisions</b></p> <p>The DEIS is unclear about cumulative and connected actions such as the potential subdivision mentioned on page 1-14...The DEIS does not discuss the potential of development on nearby private lands, or what the cumulative impacts of those developments would mean for the Lookout Pass area.<sup>2</sup></p>	<p>The FEIS <b>Chapter 4 – Socioeconomics</b>, notes that ongoing subdivision and development pressures in the vicinity of Lookout Pass may be affected to a certain extent by the LPSRA action alternatives, in combination with other social and economic factors. As stated in the <b>Chapter 4 – Land Use</b>, there is adequate private land in the region for local businesses to develop or expand. However, no private land is available for development within 1 mile of the ski area. The nearest private land is at a lower elevation in the Mullan Valley. Other private lands are located in the Silver Valley of Shoshone County, Idaho and St. Regis River Valley of Mineral County, Montana (<b>Figure 1-1</b>).</p> <p>Shoshone County housing growth has been very slow in the past 10 years. Only one subdivision has been proposed and approved in the last 10 years and only 50 housing starts were initiated in the last 5 years. The Superfund designation of the Silver Valley has dramatically affected the attractiveness of the area to new development, housing starts and in-migration according to Mark Magnus of the Shoshone County City/County Planning Department (personal communication, 9/7/00).</p> <p>Mineral County housing growth has been more robust in the past 5 years. An in-migration of retirees and second home owners has spawned 10 to 15 subdivision proposals and about 30 to 50 single-family housing starts per year. Most of the development has occurred in the western part of the county and many of the second home owners are from Coeur d'Alene and Spokane (Wayne Marchwick, Mineral County Planner/Health Inspector, personal communication, 9/7/00).</p> <p>Ski area expansion would be one of several features in the area that would draw additional subdivision development. Other features drawing home owners to Mineral and Shoshone Counties are its available private land, relatively low land prices, and dispersed recreation opportunities in nearby forested areas, such as hiking, mountain biking, wildlife watching, motorized recreation, backcountry skiing, hunting, and fishing.</p>

Source of Comment	Comment	Response
US EPA <sup>19</sup>	<p><b>Subdivisions, continued...</b></p> <p>These statements should be supported by some level of analysis: Page 4-54-- "Land use in the cumulative effects area on private lands could be affected by an incremental increase in subdivisions and development...Businesses could be benefited by increased visitors". Page 4-45-- "There is adequate private land in the region for local businesses to develop or expand. However, no private land is available for development within 1 mile of the ski area. The nearest private land is at a lower elevation in the Mullan Valley...the ski area is not expected to initiate a large influx of recreation development or subdivisions".<sup>19</sup></p>	See the response above.
US EPA <sup>19</sup>	How much developable private land lies within easy commuting distance of the LPSRA? Consider likely land uses and development trends in the area and estimate the likelihood that land near the ski area will be developed as an indirect result of the expansion....As noted in the Livingston Enterprise (3/19/97), "each visiting skier requires an automobile, miles of asphalt and concrete, a sewer system, water treatment plant, restaurants, hotels, and a handful of service workers, and places for those service workers to live". <sup>19</sup>	See the response above.
The Lands Council <sup>2</sup>	<p><b>Negatives to Ski Area Atmosphere</b></p> <p>The small ski area atmosphere, that provides a safe haven for children and families, may be lost as urban dwellers race from Spokane to enjoy steeper, more challenging terrain and expanded facilities—this is never discussed in the DEIS.<sup>2</sup></p>	LPSRA has stated that a goal of the ski area is to continue the affordable family skiing opportunities into the foreseeable future. However, for some visitors, the new lodge facilities and upgraded status of the ski area may detract from the quaint feel of the existing historic lodge and small-town atmosphere at the ski area. Alternatively, other visitors may welcome the changes because they view the existing lodge as run-down and the existing lift and other facilities as crowded. (See <b>FEIS Chapter 4 – Recreation</b> ).
The Lands Council <sup>2</sup>	<p><b>Safety</b></p> <p><b>Avalanche Hazard</b></p> <p>The proposed runs on the south side of Runt Mountain/St. Regis Pass may be positioned close to high avalanche country...Some years there are huge snow cornices up on that ridge and at times, the avalanches were so numerous that it was not prudent to go up into the basin...The avalanche warning signs going up towards the headwaters of the St. Regis River are there for a good reason.<sup>2</sup></p>	As stated in the DEIS and FEIS ( <b>Chapter 2 – Skier Safety and Chapter 4 - Recreation</b> ), LPSRA has been classified as a Class C avalanche site, which means there is a low probability of avalanche hazard (LRI, 1996). No known avalanches have occurred within the ski area boundary or the proposed ski area boundary. Known avalanche areas in the St. Regis Basin are west of the expansion area. Although there has been no indication of any avalanche activity on the north side of Runt Mountain, some of the proposed ski trails on the Idaho side may need hazard evaluation at times. Wind loading on the north side appears minimal, but the new openings on the slope would be monitored in accordance with the winter operating plan to ensure safe operating conditions (Phil Edholm, pers. comm., 8/23/00).
Charles Sheroke <sup>21</sup>	[Analyze] the increased avalanche hazard caused by snowmobiles and its impact on cross country skiers. <sup>21</sup>	The St. Regis Basin and high elevation areas of the Montana/Idaho divide are currently very popular destinations for snowmobilers and backcountry skiers. It is possible that the proposed action may cause an incremental increase in visitation to the backcountry, thereby increasing avalanche-related incidents. However, an increase in snowmobile use and avalanche hazard in the nearby backcountry may occur with, or without the proposed action because of existing trends in use and new snowmobile hill-climb technology. (See <b>FEIS Chapter 4 - Recreation</b> ).

Source of Comment	Comment	Response
Kootenai Environmental Alliance <sup>3</sup>	<p><b>Snowmobile and Cross Country Skiing Shared Use</b></p> <p>The DEIS does not contain a discussion of law enforcement issues related to current conflicts between snowmobilers and cross country skiers...How many law enforcement personnel are present at LPSRA to prevent conflicts and cite individuals, and what is their budget? How many hours a week are law enforcement personnel present at LPSRA? Would there need to be additional law enforcement to prevent conflicts between users? What would be the budget for law enforcement if the project is approved to ensure rules and regulations are enforced to protect the environment and prevent conflicts between users? <sup>3</sup></p>	<p>The Coeur d'Alene River Ranger District Law Enforcement Officer does not know of any conflicts between skiers and snowmobilers on or near Lookout Pass that have required law enforcement action. Therefore, Forest Service Law Enforcement Officers rarely patrol the Lookout Pass area. Because of this record of non-conflict on the IPNF and LNF ranger districts, it would be very difficult to predict whether additional law enforcement presence would be needed with any given alternative. The greatest need for law enforcement may be an emphasis on occasional patrols to keep snowmobile traffic off of the ski runs.</p> <p>Presently the law enforcement budget is built on documented incidences that did and/or would have required law enforcement presence. As with most Forest Service programs, there is never enough monies to do all the enforcement work that is desirable. Presently however, both the IPNF and the LNF are each seeking to fill a position for another law enforcement officer. These two positions would be available for work in the Lookout Pass vicinity as needed.</p>
The Lands Council <sup>2</sup>	<p><b>Roadless Areas</b></p> <p>Nighttime impacts on the nearby roadless areas should be analyzed...there should be no night grooming or grading in the south facing area. <sup>2</sup></p>	<p>Views of the south side of Runt Mountain from nearby roadless areas are expected to be altered by the action alternatives. The lights from ski run groomers operating at night on the south side of the ski area would be visible from high elevation roadless areas south of the ski area (see <b>FEIS Chapter 4 – Roadless Areas</b>).</p>
US EPA <sup>19</sup>	<p><b>Aesthetic Resources (noise and visuals)</b></p> <p>It is not clear whether or not night skiing is to be provided at Lookout Pass...The EIS should clarify this point, and if night skiing is included, the EIS should address it. <sup>19</sup></p>	<p>As stated in the DEIS and FEIS (<b>Chapter 2 – Alternatives</b>), night skiing is not currently offered at the ski area and night skiing is not proposed.</p>



## APPENDIX A - LIST OF PREPARERS AND REVIEWERS

**Table A-1: List of Preparers and Reviewers**

NAME	TITLE	ROLE
<b>Idaho Panhandle National Forest</b>		
Ranotta McNair	IPNF Forest Supervisor	Responsible Official
Kerry Arneson	Writer/Editor	NEPA Specialist
Jose Castro	Assistant District Ranger/Acting District Ranger for the Coeur d'Alene River Ranger District	Line Officer/Oversight
Jack Dorrell	Recreation/Visuals Specialist	Recreation/Scenery Analysis
Bruce Fahrni	Recreation/IPNF Special Use Coordinator	Recreation/Special Use Analysis
Don Garringer	Alt. Case Manager/Team Leader	Info/Rec/Silviculture Staff Officer
Val Goodnow	Botanist	TES Plant/Weed Analysis
Mike Leverick	Forestry Tech	Sale Admin/Engineering
Ed Lider	Fisheries Biologist	TES Fish Analysis
Susan Jeheber-Matthews	District Ranger, USDA IPNF	Line Officer/Oversight
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Laura Courser	Forestry Tech	Mailing List Coordinator
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Darlene Lavelle	Botanist	TES Plant Analysis
Eric Barclay	Access Management	Travel Plan
Bruce Erickson	Forester	Old Growth Analysis
Jennifer Eberlien	Archaeologist	Cultural Resource Analysis
Don Hair	Fisheries Biologist	Fisheries Analysis
Elizabeth Casselli	Recreation/Visual Resource Specialist	Recreation/Visual Resource Analysis
Carole Johnson	Forestry Tech	Transportation
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Larry Smallberg	Zone NEPA Coordinator	NEPA Specialist
Patricia O'Conner	Zone Wildlife Biologist	Wildlife Analysis
Brian Riggers	Fisheries Biologist	Fisheries Analysis
Traci Sylte	Zone Hydrologist	Watershed Analysis
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Nancy Winslow	Environmental Scientist/Geologist	Assistant Project Manager, Geology, Land Use, Air Quality Analysis
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## APPENDIX B - FINAL EIS DISTRIBUTION LIST

Notice of the availability of the Final EIS will be sent to the following persons and organizations. The list includes individuals and groups that commented or expressed interest during the DEIS comment period. The list also includes agencies that may have jurisdictional interest in the project.

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## APPENDIX C - PUBLIC INVOLVEMENT

Public participation is very important for each phase of the NEPA process. The Public Participation Plan for this EIS includes:

- Publishing a Notice of Intent,
- Listing the project in the Quarterly Project List,
- Public scoping and content analysis prior to writing the EIS,
- Publishing the Draft EIS and requesting comments, and
- Publishing and requesting comments on the Final EIS and Record of Decision.

The following steps regarding public involvement and agency coordination have been implemented thus far in the NEPA process:

**March 29, 2000:** Project initiation and planning meeting between Lookout Pass Ski and Recreation Area, Idaho Panhandle National Forests, and Land & Water Consulting. Public Participation Plan initiated.

**April 13, 2000:** Joint meeting between the Superior and Coeur d'Alene River Ranger Districts.

**April 17, 2000:** IPNF completed and mailed a Scoping Notice that included a project summary and maps to over 300 individuals, organizations, and news groups. Public comments were accepted well beyond the 30-day scoping period.

**April 21, 2000:** Notice of Intent (NOI) to prepare the Lookout Pass Ski and Recreation Area EIS was published in the Federal Register.

**April 21, 2000:** Lookout Pass Ski Area Expansion was first listed in the IPNF list of "Quarterly Schedule of Proposed Actions" that is printed four times each year. The Quarterly list is sent to over 500 groups and individuals and is also provided on the IPNF Internet web site (<http://www.fs.fed.us/ipnf>). The list includes all active projects.

**April 25 and April 27, 2000:** Feature articles appear in the Spokesman Review, Shoshone News Press, Missoulian, and Spokane.net,

**May 24, 2000:** Last scoping comment received from the general public and government agencies. Scoping content analysis completed by May 30, 2000.

**June-July, 2000:** Field work completed by Land & Water Consulting and IPNF. Wetlands and recreation conflicts examined and Alternative C proposed.

**July-August, 2000:** Alternative C runs and lifts designed and fieldwork completed by Land & Water Consulting and USFS to examine potential impacts.

**September, 2000:** Alternative snowmobile trail routes examined in the field by Land & Water Consulting and USFS.

**October, 2000:** Initial Draft EIS submitted by Land & Water Consulting to IPNF for review.

**November 30, 2000:** Joint meeting between the Superior and Coeur d'Alene River Ranger Districts.

**January 23, 2001:** The Lookout Pass Draft Environmental Impact Statement (DEIS) distributed for public comment.

**March 27, 2001:** End of public comment period on the DEIS.

**February 23, 2001:** Joint field review of Snowmobile Reroute #1 (Alternative C) over St. Regis Pass by representatives of the IPNF, Lookout Associates, Montana Nightriders Snowmobile Club, Idaho Snowmobile Association, Blue Ribbon Coalition, Idaho State Snowmobile Club, and Lookout Mountain Skyriders Snowmobile Club.

**March 8, 2001:** Presentation of the proposed action to the Shoshone Sportsman's Club by members of the IPNF.

**August 23, 2001:** Conference call between Land & Water Consulting, Inc., and IPNF representatives. Topics: format of the FEIS and responses to comments on the DEIS.

**September 10, 2001:** Field review of Alternative C – Revised and Alternative C snowmobile reroute by members of the IPNF, Lookout Associates, and Land & Water Consulting, Inc.



## APPENDIX D - REFERENCES

- Apperson, K.A., M. Mahan, W.D. Horton, and C.M. Falter, 1987. *Study IV: North Idaho Streams Fishery Research*. Job Completion Report, F-73-R-10. Idaho Fish and Game, Moscow, ID.
- Barth, Richard. 1991. Letter dated 3-7-91 from Richard Barth (silviculturalist) to District Ranger stating no TES plant species in Snowstorm EA area. Attached to Snowstorm FONSI.
- Buskirk, S., L. Ruggiero, and C. Krebs, 1999. *Habitat fragmentation and interspecific competition : Implications for lynx conservation*. In: The scientific basis for lynx conservation (The lynx science report). USFS. Internet: <http://www.fs.fed.us/r1>.
- Butts, T. 1992. *Wolverine (Gulo gulo) biology and management*. A literature review and annotated bibliography. USDA Forest Service. Missoula, Montana.
- Cole, M., 2000. *Memo on 6-5-2000 concerning NEPA, super trees and travel plan maps*. Filed in the project file.
- Dutton, B. 2000a. *Fieldnotes on vegetation, erosion and other subjects from 8-4-2000*. Filed in project file.
- Dutton, B. 2000b. *Fieldnotes on vegetation, erosion and other subjects from 8-31-2000*. Filed in project file.
- Edholm, Phil, 2000, 2001, 2002. *Personal Communication with Land & Water Consulting*, various dates. (President/General Manager of Lookout Ski and Recreation Area).
- Elliott, J., 2000. *Fieldnotes on wildlife and vegetation at Lookout Pass Ski Area*. Filed in the project file.
- Erickson, B., 2000. *Lookout Pass Ski Area Expansion Old Growth Analysis-Montana Side*. 58p.
- Finch, D. 1991. Population ecology, habitat requirements, and conservation of neotropical migratory birds. Gen.Tech. Report RM-205>
- Goodnow, V. 2000. *Personal Communication with Valerie Goodnow, zone botanist for the Panhandle NF including telephone discussion and receipt of TES Plant list and recent BA for the Lookout Pass area*.
- Granger, R., 1999. *Historical Skier Visit Demographics*. In: Lookout Pass Business Plan prepared by Ron Granger under the direction of Jack Reese, School of Business Administration, University of Montana.
- Green, P., J. Joy, D. Sirucek, W. Hahn, A. Zack and B. Naumann, 1992. *Old-growth forest types of the northern region*. In: Our Approach to Sustaining Ecological Systems. USDA Forest Service Northern Region. Missoula, MT.

- GT Consulting, 1999. *Final Specialist Report Biological Resources Fisheries and Aquatic Sciences*. Prepared for: Yellowstone Pipeline Draft EIS, USDA Forest Service, Lolo National Forest, Missoula, Montana. Under contract to: Aspen Environmental Group, Agoura Hills, California.
- Hansen, P.L., Pfister, R.D., K. Boggs, B. Cook, J. Joy and D. Hinckley, 1995. *Classification and Management of Montana's Riparian and Wetland Sites*. Miscellaneous Publication No. 54. Montana Forest and Conservation Experiment Station, School of Forestry, University of Montana. Missoula, Montana. 646 p.
- Harrison, J.E., Griggs, A.B., and Wells, J.D., 1986a. *Geologic and Structure Maps of the Wallace 1°X2° Quadrangle, Montana and Idaho*. Montana Bureau of Mines and Geology Atlas 4-A.
- Harrison, J.E., Leach, D.L., Kleinkopf, M.D., Cressman, E.R., Long, C.L., and Domenico, J.A., 1986b. *Summary Map of Resource Potential for Metallic Minerals in the Wallace 1°X2° Quadrangle, Montana and Idaho*. US Geological Survey Miscellaneous Investigations Series Map I-1509-J.
- Hayward, G. and J. Verner, 1994. *Flammulated, boreal, and great gray owls in the United States: A technical conservation assessment*. USDA Forest Service. Gen. Tech. Report RM-253.
- Brian Hoelscher. 2000. *Idaho Forest Practices Water Quality Audit Report*. Idaho Department of Environmental Quality, Boise, Idaho. 36p.
- Idaho Department of Commerce, 2000. *Internet website* <http://www.idoc.stat.id.us>.
- Idaho Department of Environmental Quality. 2001. *Idaho's 2000 Forest Practices: Water Quality Audit Final Report*. Idaho Department of Environmental Quality, 1410 North Hilton Street, Boise, Idaho. 36p. (processed)
- Idaho Department of Labor, 2000. *Internet website*: <http://www.idoc.stat.id.us>.
- Idaho Panhandle National Forests (IPNF), 1987a. *Forest Plan, Idaho Panhandle National Forests*. USDA Forest Service Northern Region, August 1987.
- Idaho Panhandle National Forests (IPNF), 1987b. *Final Environmental Impact Statement for the Forest Plan, Idaho Panhandle National Forests*. USDA Forest Service Northern Region, August 1987.
- Idaho Panhandle National Forests (IPNF), 1991. *Snowstorm Canyon Timber Sale Environmental Assessment and Record of Decision*. April 30, 1991.
- Idaho Panhandle National Forests (IPNF), 1993. *Rock Creek Environmental Assessment and Decision Notice*. January 5, 1993.

- Idaho Panhandle National Forests (IPNF), 1998a. *Access Management Environmental Assessment*. USDA Forest Service Northern Region.
- Idaho Panhandle National Forests (IPNF), 1998b. *Forest Plan Monitoring and Evaluation Report*. USDA Forest Service Northern Region.
- Idaho Panhandle National Forests (IPNF), 1999. *North Fork St. Joe River Project Environmental Impact Statement and Record of Decision*. October 14, 1999.
- Interior Columbia Basin Ecosystem Management Plan (ICBEMP), 2000.  
[http://www.icbemp.gov/spatial/pubdoc/stars/html/cmap4\\_65.html](http://www.icbemp.gov/spatial/pubdoc/stars/html/cmap4_65.html).
- Lider, Edward, 2000. *Personal communication*. Fisheries Biologist, USDA Idaho Panhandle National Forest, Coeur d'Alene, Idaho. June 23.
- Logan, B. and B. Clinch, 1991. *Montana Forestry Best Management Practices*. Montana Extension Service Publication EB0096. 33p.
- Lolo National Forest (LNF), 1986a. *The Lolo National Forest Plan*. USDA Forest Service Northern Region. February 1986.
- Lolo National Forest (LNF), 1986b. *Final Environmental Impact Statement for the Forest Plan, Idaho Panhandle National Forests*. USDA Forest Service Northern Region, February 1986.
- Lolo National Forest (LNF), 1988. *Land Systems Inventory*. 520p.
- Lolo National Forest (LNF), 2000. *Forest Plan Monitoring and Evaluation Report, Fiscal Year 1999*. USDA Forest Service.
- Lookout Associates, LLC (LA), 2000. *Lookout Pass Ski Area Proposed Expansion*. Letter to Susan Jeheber-Mathews, District Ranger, Idaho Panhandle National Forests, from Phil Edholm, President and General Manager, Lookout Pass Ski and Recreation Area. March 12, 2000.
- Lookout Recreation, Inc., 1997. *Master Development Plan for Lookout Pass Recreation Area*. Dean M. Cooper, Co-owner.
- McCleod, C. Milo and Douglas Melton, 1986. *The Prehistory of the Lolo and Bitterroot National Forests: an Overview*. USDA Forest Service, Northern Region, Lolo and Bitterroot National Forests, Missoula.
- Miller, M., 2000. *Montana Heritage Program Database Search for TES Plants in the vicinity of Lookout Pass, Montana*. 5p.
- Montana, 1994. *Administrative Rules of Montana*. ARM 16.20.617.
- Montana Department of Environmental Quality (MDEQ), 1998. *Montana List of Waterbodies in Need of Total Maximum Daily Load Development*. Water Quality Division, Helena, MT.

- Montana Department of Environmental Quality (MDEQ), 2000. *Environet Watershed Information*. <http://nris.state.mt.us>.
- Montana Department of Natural Resources & Conservation, Forestry Division, 1998. *Montana Best Management Practices Monitoring – 1998 Forestry BMP Audit Report*. 40 p.
- Montana Department of Natural Resources and Conservation (MDNRC), 1991. *Guide to the Montana Streamside Management Zone Law and Rules*. DNRC. Missoula, MT. 35p.
- Montana Department of Natural Resources & Conservation (DNRC), 1979. *Proposed Northern Tier Pipeline System, Draft EIS*.
- Montana Natural Heritage Program, 2000. Database records for element occurrences. Helena, Montana.
- MRIS (Montana Rivers Information System), 1997. Montana Fish, Wildlife and Parks, Helena, Montana.
- Newcombe, C.P. and MacDonald, 1991. Effects of suspended sediments on aquatic ecosystems. *North American Journal of Fisheries Management*. 11:72-82.
- Niehoff, Jerry. 2000. *Personal communication about soil conditions at Lookout Pass including preliminary information from the Panhandle National Forest Land Systems Inventory*. September 2000.
- Oliver, C. D. and B. C. Larson, 1990. *Forest stand dynamics*. McGraw-Hill Inc. NY, 467p.
- Quamar, A.I. and Stickney, M.C., 1983. *Montana Earthquakes, 1869-1979. Historical Seismicity and Earthquake Hazard*. Memoir 51, Montana Bureau of Mines and Geology.
- Quigley, T., R. Haynes and R. Graham. Eds. 1996. *Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin*. USFS (processed)
- Quigley, T. and S. Arbelbide Eds. 1997. *An Assessment Of Ecosystem Components In The Interior Columbia Basin And Portions Of The Klamath And Great Basins*. USFS (processed)
- Reel, S., L. Schassberger, and W. Ruediger, 1989. *Caring for our natural community: Region 1 - Threatened, endangered and sensitive species program*. USDA Forest Service. Missoula, Montana.
- Rieman, B.E. and J.D. McIntyre, 1993. *Demographic and Habitat Requirements of Bull Trout *Salvelinus confluentus**. General Technical Report, INT-GTR-302. U.S. Forest Service Intermountain Research Station, Ogden, UT.

- Rosquist, S. 2001. *Best Management Practices Effectiveness Monitoring Report*. USDA Lolo National Forest, Missoula, MT 97p.
- Ruediger, B., J. Claar, S. Mighton, B. Naney, F. Wahl, N. Warren, D. Wenger, A. Williamson, L. Lewis, B. Holt, G. Patton, J. Trick, A. Vandehey, and S. Gniadek, 2000. *Lynx Conservation Assessment and Strategy*. Interagency Publication.
- Ruggiero, L., K. Aubry, S. Buskirk, G. Koehler, C. Krebs, and J. Squires, 2000. *Ecology and Conservation of Lynx in the United States*. University of Colorado Press. Boulder, Colorado.
- Sheley, R., B. Olson and C. Hoopes. 1998. *What is so Dangerous About the Impacts of Noxious Weeds*. Extension Bull. 152. Montana State University Extension Service. Bozeman, MT 14p.
- Stephens, G., 2000. *Memo on database search of the Idaho Conservation Database and Streamnet Database for TES species on the Idaho side of Lookout Pass*.
- Touch America, Inc. (TA), 2000. *Billings to Yakima Fiber Optic Project, Decision Memo/Categorical Exclusion Administrative Draft*. Prepared for TA by Power Engineers, August 14, 2000.
- Truscott, G. 2002. Personal communication/summary report regarding old growth on the Idaho side of Lookout Pass Ski Area. 5 pages text and 32 pages of supporting documents for project file.
- Truscott, G. 2001. Personal communication regarding regeneration in the Snowstorm Canyon Timber Sale area.
- Pfister, R., N. Kovalchik, S. Arno and R. Presby. 1977. *Forest Habitat Types of Montana*. USDA Forest Service Gen. Tech. Rpt. INT-34. 174p. Ogden, UT.
- U.S. Army Corps of Engineers. Environmental Laboratory, 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. Department of the Army. Vicksburg, Mississippi.
- U.S. Census Bureau. 2002. State and County Quickfacts: Mineral and Missoula Counties, Montana; Kootenai and Shoshone Counties, Idaho and Spokane County, Washington. <http://quickfacts.census.gov>
- U.S. Department of Agriculture (USDA), 2000a. *Forest Service Roadless Area Conservation Final Environmental Impact Statement*. USDA Forest Service, Washington Office. May 2000.
- U.S. Department of Agriculture (USDA), 2000b. *Accessibility Guidebook for Ski Areas Operating on Public Lands*. (FS-703, December 2000).
- U.S. Department of Agriculture (USDA) Forest Service, 2000c. Skier Visit Report for 199-2000. 11pages plus cover letter. (File Code 2340, June 1, 2000)

- U.S. Department of Commerce, 2000. *Regional Accounts Data*. Bureau of Economic Analysis.
- U.S. Census Bureau, 2000. *County Information*. U.S. Census Bureau web site: <http://www.census.gov>.
- USDI Bureau of Land Management, 1993. *Riparian Area Management: Process for Assessing Proper Functioning Condition*. TR1737-9.
- U.S. Environmental Protection Agency (EPA), 1991. *Manual of Small Public Water Supply Systems*. Office of Water (WH-550), EPA 570/9-91-003.
- U.S. Environmental Protection Agency (EPA), 2000a. *EPA Home Page, with links to "EnviroFacts Queries" and "Locate Your Watershed"*. <http://www.epa.gov>.
- U.S. Environmental Protection Agency (EPA), 2000b. *Bunker Hill Home Page*. <http://www.yosemite.epa.gov>. r10.
- USDI Geological Survey (USGS), 2000a. *National Seismic Hazard Mapping Project*. Map generated from USGS web site.
- USDI Geological Survey (USGS), 2000b. *USGS Water Data*. <http://waterdata.usgs.gov>.
- USFS (U.S. Forest Service Intermountain, Northern, and Pacific Northwest Regions), 1995. *Decision Notice and Finding of No Significant Impact, Inland Native Fish Strategy, Environmental Assessment*. Coeur d'Alene, ID.
- Waters, T.F., 1995. *Sediment In Streams: Sources, Biological Effects, and Control*. American Fisheries Society Monograph 7, Bethesda, MD.

## APPENDIX E - GLOSSARY

**Affected environment** - Resources (including social and economic elements) within or adjacent to a geographic area that could be changed by proposed actions; the relationship of people to that environment.

**Airshed** - a basic unit in which air quality is managed.

**Alternative** - A combination of actions and practices applied in specific terms and tied to specific locations to achieve a desired management emphasis. One of several policies, plans, or projects proposed for decision making.

**Analysis area** - A delineated area of land subject to analysis of (1) responses to proposed management practices in the production, enhancement, or maintenance of forest and rangeland outputs and environmental quality objectives, and (2) economic and social impacts.

**Best Management Practices (BMPs)** - The set of practices in the Forest Plan which, when applied during implementation of a project, ensures that water-related beneficial uses are protected and that State water quality standards are met. BMPs can take several forms. Some are defined by State regulation or memoranda of understanding between the Forest Service and the States. Others are defined by the Forest interdisciplinary planning team for application Forestwide. Both of these kinds of BMPs are included in the Forest Plan as Forest-wide Standards.

**Biological assessment** - The legal record of findings for U.S. Fish and Wildlife Service proposed, threatened, or endangered species.

**Biological diversity** - The range and variety of species that collectively represent the living plants and animals within a local, regional, or continental landscape.

**Biological evaluation** - The legal record of finding for USDA Forest Service, Region 1 sensitive species.

**Board foot (BF)** - A unit of measurement for sawtimber represented by a board one foot square and one inch thick.

**Broadcast burning** - Allowing a prescribed burn to burn over a designated area within well defined boundaries, for reduction of fuel or as a silvicultural treatment, or both.

**Browse** - That part of the current leaf and twig growth of shrubs, woody vines, and trees available for animal consumption.

**Bull trout (*Salvelinus confluentus*)** - A native species that was listed as a threatened species by the U. S. Fish and Wildlife Service effective July 10, 1998.

**Canopy** - The continuous cover of branches and foliage formed collectively by the crowns of adjacent trees and other woody growth.

**Clearcutting** - Harvesting of all trees in one cut to prepare the area for a new, even-aged stand. The area harvested may be a patch, stand, or strip large enough to be mapped or recorded as a separate age class in planning. Regeneration is achieved through natural seeding or through planting or direct seeding.

**Closure** - The administrative order that does not allow specified uses in designated areas or on Forest development roads or trails.

**Commercial Thinning** - Thinning is an intermediate step in even-aged management. It is a cutting made in an immature stand to remove excess merchantable timber to accelerate diameter growth and to improve the average form of the trees that remain.

**Connectivity** - A term coined in 1984 by G. Merriam and reflecting thought of many earlier ecologists (Mann and Plummer 1995). Refers both to the abundance and spatial patterning of habitat and to the ability of members of a population to move from patch to patch of similar habitat (With and Christ 1995).

**Corridors and Linkages** - Corridors refer to "connections" over a region or biogeographic province (Samson 1992). "Linkages" or "linkage zones" describe the *connectivity* of habitat within a specified area, e.g. characteristics of a landscape that provide direct physical connections between two or more places (Samson 1992).

**Cover** - Vegetation used by wildlife for protection from predators, or to ameliorate conditions of weather, or in which to reproduce.

**Critical Habitat** - Specific areas within the geographical area occupied by a species on which are found those physical and biological features (1) essential to the conservation of the species and (2) which may require special management considerations or protection. Critical habitat shall not include the entire geographic area which can be occupied by the threatened and endangered species.

**Cubic foot (CF)** - A unit of measurement for all wood products represented by a block of wood one foot wide by one foot high by one foot thick.

**Cumulative effect** - The effect on the environment which results from an incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

**Desired future condition (DFC)** - As used in the Forest Plan, the desired future condition of the forest describes what the forest will look like as Forest Plan management direction is implemented. The two points in time chosen for description are after 10 and 50 years of implementation.

**Developed recreation** - Recreation that occurs where improvements enhance recreation opportunities and accommodate intensive recreation activities in a defined area.

**Dispersed recreation** - That portion of outdoor recreation use which occurs outside of developed sites in the unroaded and roaded Forest environment; e.g. hunting, backpacking.

**Diversity** - (1) The relative abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area. (2) The distribution and abundance of different plant and animal communities and species within the area covered by a Land and Resource Management Plan (36 CFR Part 219.3(g)).

**Downed woody habitat** - The accumulation of dead woody material on the forest floor that provides habitat for terrestrial wildlife.

**Dwarf mistletoe** - A parasitic plant that attaches to the branches and bole of a tree, reducing growth and health. Eventually, the infected portion of the tree is girdled and dies.

**Ecological processes** - The major actions or events that regulate or influence the composition, structure, function, and pattern of ecosystems and that link organisms and their environment.



**Ecological status** - Ecological status relates the degree of similarity between current vegetation and potential vegetation for a site. It can be measured on the basis of species composition within a particular community type or on the basis of community type composition within a riparian complex. The categories for ecological status include early seral, mid seral, late seral, and potential natural community(ies) (PNC), based on the degree of similarity to the potential natural community. Early seral is very dissimilar to PNC and similarity to PNC increases as seral stage becomes later.

**Ecosystem** - A complete, interacting system of organisms considered together with their environment (for example: a marsh, a watershed, or a lake).

**Ecosystem health** - The state of an ecosystem in which structure and function are sufficiently resilient to allow the maintenance of biological diversity over time and through a range of disturbances.

**Ecosystem management** - The use of an ecological approach to achieve the multiple use management of national forests and grasslands by blending the needs of people and environmental values in such a way that national forests and grasslands represent diverse, healthy, productive, and sustainable ecosystems.

**Effects** - Physical, biological, social, and economic results (expected or experienced) resulting from natural events or management activities. Effects can be direct, indirect, and/or cumulative.

**Elk Effective Cover (EEC)** - Elk effective cover is determined by estimating the percent of hiding cover in an area and modifying it by the density of open roads. This definition is specific to the Deerlodge National Forest Plan.

**Elk hiding cover** - Vegetation, primarily trees, capable of hiding 90 percent of an elk viewed from a distance of 200 feet or less.

**Elk security area** - Any area because of its geography, topography, and/or vegetation that will hold elk during periods of stress.

**Environment** - The aggregate of physical, biological, economic, and social factors affecting organisms in an area.

**Environmental analysis** - An analysis of alternative actions and their predictable short and long-term environmental effects that include physical, biological, economic, social, and environmental design factors and their interactions.

**Environmental Impact Statement (EIS)** - A formal public document prepared to analyze the impacts on the environment of the proposed project or action and released for comment and review. An EIS must meet the requirements of the National Environmental Policy Act and directives of the agency responsible for the proposed project or action. The document is issued in a draft version, which is intended for public disclosure, review and comment, and a final version, upon which a decision is based.

**Ephemeral streams** - Streams that flow only as a direct response to rainfall or snowmelt events. They have no baseflow.

**Erosion** - The wearing away of the land's surface by water, wind, ice, or other physical processes. It includes detachment, transport, and deposition of soil or rock fragments.

**Even-aged management** - The application of a combination of actions that result in the creation of stands in which trees of essentially the same age grow together. Managed even-aged forests are characterized by a distribution of stands of varying ages (and, therefore, tree sizes) throughout the forest area. The difference in age between trees forming the main canopy level of a stand usually

does not exceed 20 percent of the age of the stand at harvest rotation age. Regeneration in a particular stand is obtained during a short period at or near the time that a stand has reached the desired age or size for regeneration and is harvested. Clearcut, shelterwood, or seed tree cutting methods produce even-aged stands.

**Existing road** - A road with an existing road prism. This road may require maintenance, such as the removal of vegetation, to allow safe travel by haul trucks.

**Fire group** - A fire group is comprised of several different habitat types and is based on the response of tree species to fire and the roles these tree species take during successional stages.

**Fire/utilization** - Primary treatment on these acres is prescribed fire ignited by Forest Service employees. Small amounts of Christmas trees, sawlogs, or other forest products may be removed before or after treatment.

**Floodplain** - The area adjacent to the active stream channel which is inundated during flows which exceed bankfull level. The floodplain acts as an energy dispersion zone during flood flows, and functions as an area of deposition.

**Forage** - All browse and nonwoody plants available to livestock or wildlife for feed.

**Forest Plan** - Deerlodge National Forest Land and Resource Management Plan, September 1987.

**Forest Plan monitoring** - Monitoring and evaluation comprise the management control system. It will provide the decision maker and the public information on the progress and results of implementing the Forest Plan. In general, monitoring is designed to gather the data necessary for the evaluation. During evaluation, data provided through the monitoring effort are analyzed and interpreted. This process will provide annual and periodic summary data necessary to determine if forest plan goals and objectives are being met; if management standards are being applied; and if the effects of management are as they were predicted.

**Forest Plan standards** - Resource management standards designed to facilitate meeting of Forest goals and objectives as outlined in Chapter II of the 1987 Deer Lodge Forest Plan.

**Forest system road** - A road wholly or partly within or adjacent to and serving the National Forest System and which is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

**Fragmentation** - Division of a large land area (e.g. forest) into smaller patches isolated by areas converted to a different land type.

**Fuels** - Woody and other vegetative materials which are capable of burning.

**Fuels management** - Manipulation or reduction of fuels to meet Forest protection and management objectives while preserving and enhancing environmental quality.

**Functioning** - Proper functioning condition (functioning): Riparian-wetland areas are functioning properly when adequate vegetation, landform or large woody debris is present to dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality; filter sediment, capture bedload and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration and temperature necessary for fish production, waterfowl breeding and other uses; and support greater biodiversity. The functioning condition of riparian-wetland areas is a result of interaction among geology, soil, water and vegetation.

**Guideline** - A description of a preferred or advisable course of action. Guidelines may describe a preferred or advisable method for conducting resource activities specific to the plan area. They may also describe a preferred or advisable sequence or priority for carrying out various types of projects if this helps achieve a forest plan goal.

**Habitat** - A specific set of physical conditions that surround a single species, a group of species, or a large community. In wildlife management, the major components of habitat are considered to be food, water, cover, and living space.

**Habitat Effectiveness (HE)** - The measure of how open roads prevent full utilization of habitat by elk. As road densities increase, habitat effectiveness declines.

**Habitat type** - An aggregation of all land areas potentially capable of producing similar plant communities at climax. The collective area which one plant association occupies or will come to occupy as succession advances. The habitat type is defined and described on the basis of the vegetation and its associated environment.

**Heritage resources** - The physical remains of human activity (artifacts, ruins, burial mounds, petroglyphs, etc.) and conceptual content or context (as a setting for legendary, historic, or prehistoric events, such as a sacred area of native peoples) of an area.

**Hiding cover** - Trees of sufficient size and density to conceal animals from view at 200 feet.

**Indigenous** - That which is native to the area.

**Individual tree selection harvest** - A harvest method to develop and maintain uneven-aged stands by the removal of selected trees from specified age classes over the entire stand area to meet a predetermined goal of age distribution and species in the remaining stand.

**Indirect effects** - Effects separated in time or space from the causative actions.

**Inland Native Fish Strategy (INFISH)** - On July 28, 1995, the Regional Foresters in Regions 1, 4, and 6 signed the Inland Native Fish Strategy. This strategy provides interim direction to protect habitat and populations of native fish in the portions of the Columbia River Basin outside the range of anadromous fish. The Beaverhead-Deerlodge National Forest, west of the Continental Divide, lies within the geographic area covered by this strategy.

**Interdisciplinary team** - A group of resource specialists representing several disciplines, for example, forestry, fisheries, hydrology, soils, range management, and wildlife. The structure of the interdisciplinary team will depend upon the issues, concerns and opportunities associated with the project at hand.

**Intermediate harvest** - Any removal of trees from a stand between the time of its formation and the regeneration harvest. Most commonly applied intermediate harvests are release, thinning, improvement, and salvage.

**Irretrievable Commitment** - Irretrievable commitments are those that are lost for a period of time. If an interstate highway is constructed through a forest, the timber productivity of the right-of-way is lost for as long as the highway remains. The construction of the highway signals an irretrievable loss in exchange for the benefits of the highway.

**Irreversible Commitment** - Irreversible commitments are those that cannot be reversed, except perhaps in the extreme long term. The classic instance is when a species becomes extinct; this is an irreversible loss. Mining is a similar case; once ore is removed, it can never be replaced.

**Issue** - A problem or subject of concern raised by the public or by agency employees during scoping. Issues important to the decision at hand are analyzed in the EIS.

**Key Wildlife Habitat Components** - Areas or features of the forest which are of particular importance for maintaining overall wildlife habitat. These areas and features include moist areas, wallows, meadows, parks, critical hiding cover, thermal cover, migration routes, and staging areas.

**Landtype** - An inventory map unit with relatively uniform potential for a defined set of land uses. Properties of soils, landform, natural vegetation, and bedrock are commonly components of landtype delineation used to evaluate potentials and limitations for land use.

**Landtype association** - A logical grouping of landtypes that facilitates resource planning.

**Management Area (MA)** - Areas in the National Forest designated by the Forest Plan as having similar management objectives and a common management prescription.

**Management direction** - A statement of multiple use, other goals, and objectives, with associated management prescriptions, standards, and guidelines for attaining them (36 CFR Part 219.3).

**Management Indicator Species (MIS)** - Indicator species are those animals or plants whose presence is a fairly certain indication of a particular set of environmental conditions. Management indicator species are those wildlife species selected in the planning process to monitor the effects of planned management activities on viable populations of all wildlife and fish species, including those species that are socially or economically important.

**Management prescriptions** - Management practices, and intensities of those practices, selected and scheduled for application on a specific area to attain multiple use and other goals and objectives.

**Mitigate** - Avoid or minimize impacts by limiting the degree or magnitude of the action and its implementation; to rectify the impact by repairing, rehabilitating, or restoring the affected environment; to reduce or eliminate the impact by preservation and maintenance operations during the life of the action.

**Monitoring** - An examination, on a sample basis, to determine how well objectives have been met and a determination of the effects of those management practices on the land and environment.

**National Environmental Policy Act of 1969 (NEPA)** - Public Law 91-190. Establishes environmental policy for the nation. Among other items, NEPA requires federal agencies to consider environmental values in decision making processes.

**National Environmental Policy Act (NEPA) process** - An interdisciplinary process, mandated by the National Environmental Policy Act, which concentrates decision making around issues, concerns, and alternatives, and the effects of those alternatives on the environment.

**National Forest Management Act (NFMA)** - A law passed in 1976, as amendments to the Forest and Rangeland Renewable Resources Planning Act, which requires the development of regional and forest plans and the preparation of regulations to guide that development.

**National Forest System** - All National Forest lands reserved or withdrawn from the public domain of the United States; all National Forest lands acquired through purchase, exchange, donation, or other means; the National Grasslands and land utilization projects administered under Title III of the Bankhead-Jones Farm Tenant Act (50 Stat. 525, 7 U.S.C. 1010-1012); and other lands, waters, or interests therein which are administered by the Forest Service or are designated for administration through the Forest Service as a part of the system.

**National Register of Historic Places** - A listing maintained by the National Park Service of areas which have been designated as being of historical value. The Register includes places of local and State significance, as well as those of value to the Nation as a whole.

**No action alternative** - An alternative where no activity would occur, or where current management practices would continue unchanged. The development of a no action alternative is requested by regulations implementing the National Environmental Policy Act (NEPA) (490 CFR 1502.14). The no action alternative provides a baseline for estimating the effects of other alternatives.

**Nonpoint source pollution** - Diffuse sources of water pollution that come from indefinable sources such as agricultural, timber harvest and road construction activities.

**Noxious weeds** - Rapidly spreading plants that cause a variety of major ecological impacts to both agriculture and wildlands.

**Objective** - A concise, time specific statement of measurable planned results that respond to preestablished goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.

**Old growth** - Region One currently defines old growth as ecosystems distinguished by old trees and related structural attributes. Refer to old growth definitions in Chapter III.

**Overstory** - That uppermost canopy of the forest when there is more than one level of vegetation.

**Patch** - Ecosystem elements (e.g. areas of vegetation) that are relatively homogeneous internally and that differ from what surrounds them.

**Payment in lieu of taxes (PILT)** - Under the 1976 Payment in Lieu of Taxes Act, counties in which National Forest land is located receive revenues from National Forest timber sales, grazing fees, recreation fees, etc. Counties may use these revenues for roads and schools.

**Perennial stream** - A stream which normally flows throughout the year.

**Plant association** - A kind of climax plant community consisting of stands with essentially the same dominant species in corresponding layers.

**Post and pole timber** - Lodgepole pine trees in the 3 to 6 inch diameter at breast height range that are utilized for commercial roundwood products, such as fence posts and corral poles.

**Potential natural community (PNC)** - The biotic community that would become established if all successful sequences were completed without interferences by man under the present environmental conditions.

**Prescribed burning** - The intentional application of fire to wildland fuels in either their natural or modified state under conditions that allow the fire to be confined to a predetermined area and at the same time to produce the intensity of heat and rate of spread required to further certain planned objectives (e.g. silviculture, wildlife management, etc.).

**Present net value (PNV)** - The difference between the discounted value of all benefits and the discounted value of all costs over the analysis period.

**Precommercial thinning** - Previously harvested units (clearcut) would be thinned by falling sapling-sized trees. These stands do not contain trees big enough to be sawlogs.

**Prescribed burning** - The intentional application of fire to wildland fuels, in either their natural or a modified state, under conditions that allow the fire to be confined to a planned area and, at the same

time, produce the heat intensity and rate of spread required to gain certain planned objectives (for example, silviculture, wildlife management, etc.)

**Prescribed fire** - A fire burning under specified conditions which would accomplish objectives in strict compliance with an approved plan, and so that the conditions under which the burning takes place and the expected results are specific, predictable, and measurable.

**Prescription** - Management practices selected and scheduled for application on a designated area to attain specific goals and objectives.

**Project file** - More detailed documentation of an environmental analysis, usually located in files in the Forest Service District Office or the Forest Supervisor's Office.

**Proposed action** - Under NEPA, a proposed action is a proposal made by an agency to authorize, recommend, or carry out an action to meet a specific purpose and need.

**Public involvement** - A Forest Service process designed to broaden the information base upon which agency decisions are made by 1) informing the public about Forest Service activities, plans and decisions, and 2) encouraging public understanding about and participation in the planning processes which lead to final decision making.

**Purpose and need** - A statement in the Notice of Intent and EIS that explains why an action is being proposed and what need the agency is trying to meet through the action.

**Record of Decision (ROD)** - A document separate from but associated with an environmental impact statement that publicly and officially discloses the responsible (decision making) official's decision about the alternatives assessed in the environmental impact statement, and the alternative chosen to implement.

**Recreation Opportunity Spectrum (ROS)** - A system for planning and managing recreation resources that recognizes recreation activity opportunities, recreation settings, and recreation experiences along a spectrum or continuum. This continuum ranges from primitive at one end to urban at the other. The six categories included in the ROS, in order of increasing development, are: Primitive, Semi-primitive Nonmotorized, Semi-primitive Motorized, Roaded Natural, Rural, and Urban.

**Reforestation** - The renewal of forest cover by seeding, planting, and natural means.

**Research Natural Area** - An area in as near a natural condition as possible, which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features. The area is set aside to preserve a representative sample of an ecological community primarily for scientific and educational purposes.

**Reserve trees** - Individual trees or groups of trees from one-fourth to several acres in size which are retained in the stand to meet objectives other than regeneration.

**Revegetation** - The reestablishment and development of plant cover. This may take place naturally through the reproductive processes of the existing flora or artificially through the direct action of man, e.g., reforestation, range seeding.

**Riparian areas** - Areas with distinctive resource values and characteristics that are comprised of an aquatic ecosystem and adjacent upland areas that have direct relationships with the aquatic system. This includes floodplains, wetlands, and all areas within a horizontal distance of approximately 100 feet from the normal high-water line of a stream channel or from the shoreline of a standing body of water.

**Riparian Habitat Conservation Areas (RHCA's)** - Portions of watersheds where riparian dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines. RHCA's include traditional riparian corridors, wetlands, intermittent streams, and other areas that help maintain the integrity of aquatic ecosystems.

**Roadless Area** - A National Forest area which (1) is larger than 5,000 acres or, if smaller than 5,000 acres, contiguous to a designated wilderness or primitive area; (2) contains no improved roads (constructed or maintained for highway vehicles); and (3) has been inventoried by the Forest Service for possible inclusion in the wilderness preservation system.

**Roadless Area Review and Evaluation II (RARE II)** - A comprehensive process, instituted in June 1977, to identify roadless and undeveloped land areas in the National Forest System and to develop alternatives for both wilderness and other resource management.

**Rotation** - The planned number of years between the formation or generation of trees and their harvest at a specified stage of maturity.

**Salvage harvest** - The harvest of trees that are dead, dying, or deteriorating (e.g. because they are overmature or materially damaged by fire, wind, insects, fungi, or other injurious agents) before they lose their commercial value as sawtimber.

**Sawtimber** - Trees containing at least one 8-foot piece within a 5.6-inch diameter inside bark at the small end and meeting the Regional specifications for freedom from defect. Softwood trees must be at least 8 inches in diameter at breast height for all species except lodgepole pine, which will be 7 inches in diameter at breast height.

**Scoping process** - An early and open public participation process for determining particular issues to be addressed in an environmental document and for identifying the significant issues related to a proposed action.

**Sediment** - Solid material, both mineral and organic, that is in suspension, being transported, or has been moved from its site of origin by air, water, gravity, or ice.

**Seed tree harvest** - The removal in one harvest of most of the mature trees from an area, leaving only a small number of desirable trees to provide seed for regeneration.

**Seedling/sapling** - A size category for forest stands in which trees less than 5 inches in diameter are the predominant vegetation.

**Sensitive species** - Those plant or animal species that merit concern due to limited or declining population size or a reduction in habitat and as recognized by the Regional Forester.

**Seral** - A biotic community that is developmental; a transitory stage in an ecologic succession.

**Seral stages** - The developmental stages of an ecological succession.

**Settlement Agreement** - For the purpose of resolving some appeals to the Deerlodge National Forest Plan, representatives of the Forest and a diverse group of appellants negotiated the "Settlement Agreement Between the Deerlodge National Forest and the National Wildlife Federation et al., and the Intermountain Forest Industry Association et al.", signed March 27, 1989.

**Shelterwood harvest** - The removal of a stand of trees through a series of harvests designed to establish a new crop with seed and protection provided by a portion of the stand.

**Silviculture** - The art and science of growing and tending forest vegetation, i.e., controlling the establishment, composition, and growth of forests for specific management goals.

**Similarity to potential** - The potential of a stream is a description of its shape and form under natural conditions, including disturbances in the watershed such as fire and climatic change. An assessment of similarity compares the existing shape and form of the stream to its potential.

**Significant** - As used in the National Environmental Protection Act: requiring consideration of context and intensity or severity of impact. This includes: beneficial and adverse impacts; the degree that the action affects public safety; unique characteristics of the geographic area; highly controversial effects; highly uncertain effects; the degree to which an action may establish a precedent for future actions; cumulative impacts; cultural and historic resources; Threatened and Endangered Species; and compliance with environmental laws.

**Site Preparation** - A general term for a variety of activities that remove competing vegetation, slash, and other debris that may inhibit the reforestation effort.

**Slash** - The residue left on the ground after felling and other silvicultural operations and/or accumulating there as a result of storm, fire, girdling, or poisoning of trees.

**Snag** - A standing dead tree usually greater than five feet in height and six inches in diameter at breast height.

**Stand** - A community of trees or other vegetative growth occupying a specific area and sufficiently uniform in composition (species), age, spatial arrangement, and conditions as to be distinguishable from the other growth on adjoining lands, so forming a silvicultural or management entity.

**Standards** - Limitations to be placed on management activities within a plan area to ensure compliance with applicable laws and regulations or to limit the discretion to be permitted during project decision making. Standards are limited to those actions that are within the authority and ability of the agency to meet or enforce.

**Stocking** - The degree to which trees occupy the land, measured by basal area and/or number of trees by size and spacing, compared with a stocking standard; that is, the basal area and/or number of trees required to fully utilize the land's growth potential.

**Successional stage** - A phase in the gradual replacement of one community of plants by another.

**Suitability** - The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone (passed). A unit of land may be suitable for a variety of individual or combined management practices.

**Swale** – a normally-dry draw or concave low area in the topography caused by a variety of geologic and geomorphic conditions, often erosion at the upper portion of a drainage basin. May transport runoff during snowmelt or large rainstorm events but lacks a developed streambed and banks. Also lacks riparian or wetland vegetation.

**Temporary road** - A road that is constructed for short-term use to access a timber harvest unit and that is obliterated (recontoured) after logging or prescribed burning activities are completed.

**Threatened and Endangered Species** - Any species of the plant or animal kingdom at risk of extinction or whose viability is in doubt. Federal codes are defined as follows:

**Endangered species** - Any species that is in danger of extinction throughout all or a significant portion of its range and listed as such by the Secretary of the Interior in accordance with the Endangered Species Act of 1973.



**Threatened species** - Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

**Candidate species** - Any species not yet officially listed as threatened or endangered, but that are undergoing a status review or are proposed for listing according to Federal Register notices published by the Secretary of the Interior or the Secretary of Commerce.

**Total Maximum Daily Load (TMDL)** - The maximum allowable load of a pollutant to a water body that will result in the body's water quality meeting standards. Consists of existing and future point sources, existing and future nonpoint sources, and a margin of safety.

**Vegetation** - Plants in general, or the sum total of the plant life above and below ground in an area.

**Vegetation type** - A plant community with distinguishable characteristics.

**Vegetative community** - A group of one or more populations of plants in common spatial arrangement with common nutritive and growth functions.

**Vegetative community types** - An aggregation of all plant communities distinguished by floristic and structural similarities in both overstory and undergrowth layers. A unit of vegetation within a classification.

**Visual resource** - The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.

**Watershed** - The total area above a given point on a stream that contributes water to the flow at that point.

**Water Quality Limited Segment (WQLS)** - A stream segment that is violating applicable state water quality standards and/or that is unable to support beneficial uses, even after the application of technology based effluent limitations. A WQLS will require a TMDL before it can be removed from the state list of WQLS's.

**Westslope cutthroat trout (*Oncorhynchus clarki lewisi*)** - A native species that has been petitioned for listing as a threatened species under the Endangered Species Act and is considered a sensitive species by the Northern Region of the Forest Service. Genetically pure cutthroat trout which have been analyzed using an electrophoresis process in which the purity of a sample of trout is determined by the location pattern of genes in a gel matrix.

**Wetlands** - Areas that are inundated by surface or ground water frequently enough to support (and under normal circumstances do support) a prevalence of vegetation or aquatic life that require saturated or seasonally saturated soil conditions for growth and reproduction.

**Wilderness** - Federal land retaining its primeval character and influence without permanent improvements or human habitation as defined under the 1964 Wilderness Act.